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Heads the Chamber

Raymond Dupuis, president of the Montreal department store Dupuis Freres Ltd., this week became president of the Canadian Chamber of Commerce, the nation's largest trade association. He heads an organization of 700 local boards and chambers across Canada, which could be the voice of some 2,200 companies, titanic and tiny.

(Personality sketch on p. 6.)

THE NATION'S BUSINESS

Straight Talk For The Americans

In his straightforward talks to American businessmen in Chicago and Milwaukee this week, reported on page 28, Trade Minister C. D. Howe was a truly representative spokesman of Canada. He used his unique authority to tell American audiences some of the things Canadians have been longing to hear someone say.

Mr. Howe says he hopes Canada will never impose rigid controls on incoming foreign capital, as advocated recently by a prominent member of the Opposition. But the Minister has frankly warned American investors against taking Canada for granted or regarding it as another Puerto Rico or Panama.

He reminded them that Canadians have as much national pride as Americans. He told them that our welcome for American capital didn't exclude strong feelings about how it ought to behave. He even advised them not to assume that Canada can go on indefinitely running a billion-dollar annual deficit with U. S.

He might have added what the president of the Canadian Exporters' Association wrote to the Boggs committee of the House of Representatives at Washington. "For the time being," wrote D. B. Gillespie, "our trade deficit is being largely offset by an influx of capital to Canada; but this is a precarious method of overcoming trade problems and one which is causing deep concern to Canadians in all walks of life."

Four Specific Steps

Mr. Howe made four specific suggestions to American firms with Canadian subsidiaries:

To admit equity participation for Canadians by offering their shares in this market;

To make more use of Canadians in top management;

To publish the financial results of the Canadian companies;

To allow their branch plants to engage in export trade.

For most Canadians these suggestions represent only a part of the code to which American companies should voluntarily submit. Mr. Howe, as smart U. S. businessmen will understand, has given gentle expression to Canadian feelings. They will be well advised to adapt themselves to Canadian susceptibilities in ways the Minister didn't mention.

This is neither a threat nor a complaint. It is merely the statement of an enduring fact of Canadian life and of public sentiment which is abundantly clear to thinking Canadians. We must try to make sure that it is equally clear to Americans who want to share in the opportunities for profitable business here.

Here it is, stated bluntly:

If U. S.-controlled enterprises in Canada don't manage to adapt themselves to the legitimate national pride of which Mr. Howe reminded them, there will be a strong demand here for pulling in the "welcome" mat that still lies across our 3,000-mile threshold; and that would be a misfortune for both countries concerned.

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The CBC and its Competitors

The CBC's views on two disputed questions were recently offered by its chairman, A. Davidson Dunton, to the Royal Commission on Broadcasting. The CBC, he says, is willing to have Canadian competition with its television programs; but in centres like Toronto, it's suggested, the second TV station should not be owned by a private operator but leased from the CBC itself. And the CBC, Mr. Dunton further says, would be happy to hand over some of its regulatory functions to an independent tribunal.

As for TV, a governing factor is that this is an extremely expensive method of bringing information and entertainment to the public. The CBC is charged by law, and properly so, with the duty of giving all Canadians a TV service as soon as practicable. To carry out this assignment it is going to need very large revenues indeed, whether from tax receipts, license fees, advertising or some other source. The need for money will be especially urgent in the ten-year expansion period that lies just ahead.

Works Well in Britain

There may or may not be enough talent on hand to sustain competing TV systems in this country; this is for producers and the audience to judge. If there is, and if there is also sufficient revenue in sight, the public would be glad of the chance to switch TV channels without recourse to the U. S. But it's a basic necessity that the CBC should be financially enabled to play its indispensable role. The landlord and tenant arrangement proposed by Mr. Dunton is the system set up for commercial TV in Britain. It yields a profit to the public treasury there while not inhibiting the liberty of private program producers.

As for the CBC's regulatory powers, the argument about them is a lot more interesting to the combatants than it is to the public. Critics of the CBC sometimes talk as if it had grabbed these powers, against opposition, and now hugely enjoys exercising them. This is not so. The powers were given to the CBC, as duties, by act of Parliament. Mr. Dunton says, and one can readily believe him, that the CBC would be glad to get the private stations out of its hair. It derives no joy from imposing rules on the people with whom it has to co-operate in serving the Canadian audience.

Now that this point is cleared up, it should be feasible to devise a system that will make everybody happy. So far as set-owners are concerned, all they're interested in is good programs, Canadian so far as possible.

Retail Credit Curbs May Hit Car Buying

Installment Finance Companies Are to Control Further Credit Growth—The Big Unanswered Question Is: How Will It Be Done?

By DALTON ROBERTSON

Odds are that it will be harder to finance a new car this fall.

That's still a toss-up. But it's how it looks now.

After a second round of talks with the Bank of Canada officials, representatives of major installment finance companies posted notice they would control further expansion of credit.

Restraint in the fast-expanding field of retail sales financing will be imposed by the installment finance companies themselves.

This is the latest result of the Bank of Canada's implacable march toward fully effective, across-the-board credit restraint.

Until focusing attention a few weeks ago on the installment finance companies, the central bank had concentrated on slowing the expansion of bank credit.

This clamping down on installment credit has been wished on the somewhat reluctant finance companies.

But support for belief that the finance companies will co-operate fully can be found in the Bank of Canada's continuing and determined drive to slow the rate of credit expansion. There is even speculation this week that the central bank is contemplating another increase in interest rates.

But still a big mystery: What measures will the installment finance companies take to control credit?

Financing retail sales contracts —the bulk of which are for cars and trucks—these companies extended just under $1 billion of new credit last year. Loans outstanding at year-end amounted to $783 million.

This is a sixfold growth of credit since 1947. From all indications, both new credit and balances outstanding have continued to expand rapidly throughout this year.

No installment sales company has yet announced the methods it will choose to curb this credit growth.

There are alternatives:

—Larger down payments could be required.

—Shorter repayment periods could be introduced.

—Finance companies could tell dealers to be more selective about time selling and to keep within the limits of last year's total credit.

This last hold-the-line method is reported to be particularly favored by Bank of Canada officials. They have already limited the finance companies' bank borrowings this year to the line of credit used in 1955.

A few of the installment finance organizations admit they are a little concerned about what the rapid build-up of credit buying will mean to sales and use of credit in the future. But they are in a sharply competitive business where growth, to a large extent, is reflected in rising balances of credit outstanding.

So far they have been able to supply all the credit required by selling their own commercial paper and by borrowing through established sources. This indicates their imposing of credit restraint is entirely Bank-of-Canada-inspired.

Since the alternative to voluntary restraint could conceivably be direct government controls—unwanted by both the Bank of

(Continued on page 9, col. 3)

Will Tight Money Medicine Cure Our Growing Pains?

For digests of some of the speeches at the annual meeting of the Chamber of Commerce this week, see p. 30-34.

By ALLAN FENTON

QUEBEC CITY (Staff) — How effective are Canada's fiscal and monetary policies in checking inflationary pressures?

What are the limitations of monetary policy as an economic stabilizer?

Does tighter money fall with very uneven impact on many sections of the economy?

These key questions in today's business picture were raised at the annual meeting of the Canadian Chamber of Commerce here this week.

The Chamber's decision to base one theme of the meeting on monetary and fiscal policies followed Finance Minister Harris' statement last August that these policies are intended to encourage the sustained growth of the economy within the framework of a stable, over-all price level.

The general, but unanimous, thinking: The objective was reasonable but prices in the postwar period have continued to increase. The aim has fallen far short of realization. Inflationary pressures warrant a tight money policy and since this operates on the economy as a whole, it cannot easily be woven into a particular situation. In short, the policies are no cure-all.

Speakers were L. A. Forsyth, president of Dominion Steel & Coal Corp.; A. C. Ashforth, president, Toronto-Dominion Bank; Marcel Belanger, secretary, Faculty of Commerce, Laval University, and K. W. Taylor, Ottawa, deputy minister of finance.

Chairman was Morgan Reid, member of the executive council, Canadian Chamber of Commerce.

Forsyth suggested that Canada's inflation economy is not a result of fiscal and monetary policies as such. There is no control mechanism available to those who administer these policies which can be used to offset the political pressure which lies at the root of the problem.

The situation Canada faces admits of no worthwhile corrective because no government, now or future, can command the support of the public in the sort of restriction of individual liberty which is involved in the reactionary adjustment required, Forsyth said.

Several speakers pointed out that one limitation of Canada's monetary policy was perhaps largely external. The rise in the interest rates by the banks was to discourage borrowing and stimulate savings. But foreign capital seeking higher yields tends to move to this country when interest rate rises. As a result, restrictions on internal borrowing is replaced to some extent by foreign credit.

Can Canada then make an effective and independent monetary policy? If Canada develops a tighter monetary policy than the Federal Reserve in the U. S., is it not encouraging a substantial expansion in the inflow of capital goods?

There has been a large inflow of capital funds. In turn, this indicates there is the secondary effect of speeding up foreign ownership of Canadian assets. For the short term, Canada can probably

(Continued on page 9, col. 5)

Growth Fires Short, Sharp Cement War

By CLIFFORD FOWKE

A multi-million-dollar, international war for Canada's cement markets is being fought sporadically—a foray here, a sortie there.

The battle is expected to become full-scale toward the end of this year. The fighting certainly will be hot and heavy early next year when the 1957 spring building surge shoots up demand. First casualty will be cement imports from Europe, Japan and possibly the Iron Curtain countries.

But come 1958, with construction continuing its 19% volume increase, it's believed, the cement war will probably be over. There will be enough market even for the 14 million bbls.-a-year extra Canadian capacity which will have been added since the start of this year.

Current competition for markets is a situation which has cast its shadow far ahead (FP, Dec. 24, 1955). It caused one contestant to falter, with postponement of its decision to build an Ontario plant. But the other seven, with the 24-million-bbls.-a-year **Canada Cement Co.** as the Goliath, went ahead confidently with their plans. This was their reason:

Exhaustive market studies con-

(Continued on page 8, col. 3)

Wanted: Skilled Help

Canada, U.S. Locking Horns In Fight for Other's Skills

Canada, as usual, is battling a heavy drain of young skillpower to the U. S., now a still bigger threat through choice-money offers. But we're starting to hit back. Ottawa has opened with a bang its campaign to lure U. S. immigrants here.

By LESLIE WILSON

OTTAWA (Staff) — The Federal Government will intensify its campaign to get bright young Americans to come to Canada.

Particularly, Canada needs to reverse the flow of Canadian skillpower into the U. S.

First shot in the campaign was the plan to send two experienced immigration officers to the U. S. to size up the possibilities of recruiting American immigrants (FP, Sept. 8).

Second shot was fired this week in Chicago by Fisheries Minister James Sinclair. He spoke to the annual meeting of the Audit Bureau of Circulation.

To the Canadian-American audience, he said bluntly:

"The U. S. actually has a debt to pay back to Canada in this matter. We are now getting about 10,000 immigrants a year from the U. S. but we need more."

He pointed out the U. S. has attracted "tens of thousands of Canadians" in the last 50 years, and ought to encourage a movement back to this country.

(Continued on page 3, col. 3)

Recruiting agents of U. S. business will appear in force on two of Canada's largest campuses next spring — University of Toronto and McGill. They will offer salaries in the $425-$450 range for engineering and science graduates against the $350-$370 which Canadian companies will be offering.

There'll be small numbers of U. S. recruiters on other campuses talking the same kind of money.

Because they'll be coming too late and because their numbers — in relation to Canadian recruiters as a group — will be small, the U. S. recruiters probably won't siphon off enough of Canada's 2,000 engineering graduates to cause Canadian companies to boost salary schedules or change development plans.

But if they come early and in numbers in 1958, things could be different.

Some Canadian university placement officials feel U. S. recruiters may drive up Canadian engineering and some science salaries to the point where they're competitive, in the lower grades at least, with those in the U. S.

Add to this another hot-demand situation: It's expected there'll be 4,000 Canadian engineering jobs next spring — two for each graduate.

A Post Survey

These conclusions are based on a Financial Post survey of opinions of university placement officials across Canada.

Main reason for the quickening interest in Canadian university graduates by American corporations is the growing belief in the U. S. that the draft will be "de-emphasized" whichever party wins the November election.

In past years, the Canadian graduate saw little reason to risk being drafted into the American army, so he wasn't ready to consider U. S. propositions very favorably. But in a few months the situation will be quite different, it's believed.

Legally, males up to the age of 26½ are still subject to draft, married or not. Right now there are three loopholes in this regulation:

—Many draft boards have

(Continued on page 3, col. 1)

Nation Readies Big Push For More Winter Work

By MICHAEL BARKWAY

OTTAWA (Staff) — Canada is entering the fall-winter season with more people at work than ever. Prospects for winter employment are as good as they have been for years.

But plans are still being laid for extensive campaigns to stimulate winter employment.

They may lead to the winter's biggest publicity campaign.

This fall, unplaced job-seekers are running about 30,000 below a year ago, although the labor force is about 180,000 larger.

Official figures are not yet available even for September. But it's believed that unplaced applicants for jobs were still going down in numbers at the end of the month. They were very little higher than at the fall low point in 1952, and proportionately much lower because this year we have almost half-a-million more workers than we had five years ago.

According to the usual seasonal pattern, the number of unemployed has probably started to increase moderately since the beginning of October. But all the evidence is that very few reliable workers are unable to get jobs if they want them. And there are good reasons for thinking that the normal seasonal decline in employment from now on may be less severe than usual.

Nevertheless, plans are being pushed ahead — both here and in scores of communities — for campaigns to stimulate employment in the winter trough — the first three months of 1957.

Labor Minister Gregg is addressing a new letter this week to employers all over Canada asking them to get behind the work of the local committees which are planning winter work campaigns.

The beginning of November will find local committees at the height of their planning. In the middle of January they will blossom out into full-scale appeals to the public to "Do it now." "Why wait for spring?" they will challenge.

A new feature of the campaign this year is expected to be participation by national advertisers. After examining the scope of last year's promotional efforts on a local scale in nearly 170 communities, national advertisers are being advised to consider tying in their appeals with the theme of local publicity. Possibilities are understood to be under discussion in the Association of Canadian Advertisers.

Labor experts are hopeful that the investment boom which has kept Canada's labor supply so fully stretched all summer may carry over into increased winter employment as well.

The ambitious $8 billion capital expansion program planned for 1956 cannot now be fulfilled completely. But many concerns with expansion plans will probably be encouraged to do all they can dur-

(Continued on page 9, col. 2)

Loblaw Inc. Expands in U.S. Buys Pittsburgh Supermarts

A 16-store chain of supermarkets in Pittsburgh has been acquired by **Loblaw Inc.**, Buffalo. Loblaw Inc. is 56% owned by **Loblaw Groceterias Co.**, Toronto.

Sale price was not disclosed.

The chain, known as **Sparkle Markets**, does an annual volume in excess of $20 million, President R. J. Peachey of Loblaw Inc. informed The Post.

Sales of Loblaw Inc. in the year ended Feb. 26, 1956 were $212 million. So far this year they are substantially above the year-ago level, he said.

Earnings this year are "satisfactory," he said.

Loblaw Inc. announced in May it was planning to enter the Pittsburgh market this year.

It has a number of new supermarkets under construction there now, mainly on the outskirts.

With acquisition of the Sparkle Markets chain, and other stores built, number of stores operated has reached 179, compared with 154 at the end of February.

New Car Selling For Only $1,000?

Another German automaker, Carl Borgward, will attempt to carve himself a slice of the Canadian small-car market with a car that may sell for less than $1,000.

DuMont Motors Ltd., Toronto, which is acting as Canadian agent for Borgward, will import two types of Borgward cars.

One is a small car, the Hansa, which comes in two sizes. With a 600 cc motor, it will sell in Canada for $1,000; with a 400 cc motor, it will sell for "considerably less than $1,000."

The other is the Borgward car proper which comes in three models. One is a station wagon priced in Canada at $2,845; the second is the "Isabella T.S." model at $2,945; the third is a two-door sedan, $2,570.

DuMont Motors plans to set up service centres and dealerships for the Borgward cars in Canada. Six have now been established and it is intended to locate 25 by the end of the year.

Anti-Stampers Get Tough Rap Law as 11 Cases Flop

By RODNEY TOUCHE

Opposing forces in the campaign to introduce trading stamps into Canadian retailing are going into action next week.

On Monday, the Retail Merchants Association of Canada presents a brief to Justice Minister Stuart S. Garson. While the contents are not disclosed, it is likely that the association will point out means of tightening the law against stamps.

The association's three lawyers have spent four months preparing the 25-page brief. Some 29 trading stamp plans now in Canada have been listed.

"We have spent about $4,000 so far and we haven't got a case in court yet," foods division manager Arnold Rands tolds delegates to the Ontario division's convention this week. He said that the association had taken 11 cases to crown attorneys.

How Says Minister?

How is the minister of justice likely to react to the brief? His views were expressed recently in a letter answering a complaint about trading stamps. Here is an extract:

"The next step in this matter is for those responsible for the enforcement of this trading stamp law to prosecute anyone who may have broken it.

"I understand that certain provincial crown prosecutors are now considering the launching of such prosecutions.

"Until by such a prosecution the present law has been tested, we have no reason for supposing that it is not enforceable."

On the other side in the campaign, the leading trading stamp promoters are attempting to confine criticism to the more extravagant giveaway plans.

R. H. MacLennan, general manager for the Canadian operation of **Gold Bond Stamp Co.**, announced this week that he wanted to form a nationwide association of premium stamp companies.

Their aim? "Self-regulation within the industry," he said. "We are definitely concerned about the prospect for development of unethical stamp procedures.

"It is apparent that some newcomers to the field have already started uneconomic operations that could result in a ridiculous misuse of this merchandising device."

MacLennan said that the new association would enforce a rigid code of ethics among those who joined it. Giving away too many stamps would be frowned upon.

THE SIGNS AND PORTENTS

CANADIAN OIL industry is deeply disturbed about a specific professional shortage: geologists. Universities here graduate 200 a year; the oil industry will need 150 a year for the next five, will probably get only 75. A meeting of oil and university officials held under auspices of Alberta Society of Petroleum Geologists spent two days studying the question.

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PRESENT GEOLOGY courses, the oilmen complained, put far too much emphasis (five hours to one) on hardrock geology, not enough on sedimentary. They'd also like graduates to have better scientific background generally, better knowledge of English.

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SOME UNIVERSITY replies: (a) There's a boom in hardrock geology as well as in sedimentary and the oil industry hasn't supported education in the way the hardrock industries have (the recent $2.5 million **Inco** grants, for instance); (b) How can we beef up our teaching if you keep hiring our lecturers?

RCMP ISN'T HAPPY about its role in policing growing towns in many parts of Canada, wants out, will offer its 124 municipalities (two are over 25,000 pop.) a deal whereby routine such as traffic would be handled by local authority; RCMP would be called in only for serious crime.

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A QUOTE WORTH noting: "I never had a teacher I hated . . . I have also liked every boss I ever had; I always tried to please him and do more than he expected if I possibly could, never less." — Benjamin Fairless, who retired last year as board chairman, **U. S. Steel.**

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COLOR TV BOOM may be five years away in Canada—not just a year or so. TV people think color will boom here when a million sets are operating in the U. S. Campaign to sell a million sets this year in the U. S. has been "extremely disappointing" —may not move 200,000.

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VERY SOFT SPOT in the economy is appearing in ship-building. No major government work in sight. Two recent launchings are to be followed by layoff of 500. Maritime Marine Workers' Federation (nine locals, 2,500 members) calls situation critical, has appealed to Canadian Maritime Commission "with a view to allocating any new ship construction on hand."

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NEW LUMBER MARKET is opening up through increased use of laminated wood structural beams over competing materials in schools, churches, etc. It's 10% cheaper than steel or reinforced concrete and it can be made strong as steel.

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TV TRICKLE of good movies will become a flood this winter and TV people are worried that this will hurt ratings of major network shows. Recent (1954) superior English films have been available for some time for TV showing in both U. S. and Canada. Now the major U. S. film studios, which had been releasing only pre-1941 feature backlog to TV, are releasing everything up to '48.

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NATIONAL EMPLOYMENT SERVICE is considering making job applicants at its offices step up and inhale deeply for TB tests. Decision will depend on result of pilot scheme to be inaugurated at Hamilton office.

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TO MAKE THINGS TOUGH for the careless motorist, Ontario will introduce legislation bringing in point system of suspending driving licenses. Normally, suspension follows serious offense such as careless driving. Ontario will set up point count for lesser offenses, suspend licenses when driver has chalked up specified point total.

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FARM MACHINERY exporters will find opportunities in Brazil where government has set up $38 million fund for importation of farm machinery and implements at special exchange rates. Canadians have been losing out in Brazil recently on investment and export deals, to Germans, Americans, Japanese.

Stock Market Highlights

Industrials

Canadian industrial stocks turn mildly higher for a second week of recovery but after a string of about eight sessions of uninterrupted advance, some easiness appears. For details on some of the stocks that moved, see p. 5.

MacNab's manager sells 50 shares of **Montreal Locomotive.** For details of the latest series of transactions in this exclusive Post investment account, see p. 14.

Mines and Oils

Mining and oil issues generally tend lower although activity brisk as trading emphasis centres on lower-priced speculatives. For details on some of the stocks that moved, see p. 46.

Base metals slip mildly with copper issues leading the losers as further easiness appears in the market for the red metal. **Golds** hold steady.

Western oil and gas issues also down slightly. Losses generally small in quiet trading with brief spurts of buying interest appearing in individual issues.

the "Tear Drop" flat-topper

A new, more streamlined version of last season's best-selling "Top Level"—the "Tear Drop" Flat-Topper hat with flattering tear-shaped crown, narrow brim, continental back-bow. Fine fur felt in newest Fall shadings of blue, grey and brown. Its up-to-the-minute styling is typical of all furnishings that wear the label

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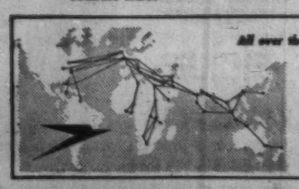

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Trend of Business

Output of pig iron climbs steadily through first three quarters. September production advanced to 296,699 tons for a 7.2% year to year increase. This gain brought first nine month production to more than 2.6 million tons, 12.6% higher than in the same months last year.

Steel production boosted even more sharply to meet demands of fast-paced manufacturing and industrial construction. In September, ingot output topped 419,966 tons, 14.4% above year-earlier levels. This means that in the first nine months of 1956, production totaled over 3.8 million tons for a 19.8% year to year gain.

August wholesale sales top $673 million for a 12.4% gain over those in the same month last year. During the month significant increases were reported for coal and coke, meat and dairy products and transportation equipment and supplies. First eight month sales at $5.1 billion are up 16.3% with strongest support coming from sales of farm machinery, transportation equipment and "other products."

Pop makers report production leveling. Output of carbonated beverages amounted to 13.6 million gal. in August, down 11.2% from a year earlier. This is the second year-to-year decline in a row. Manufacturers lay most of blame on cooler weather this summer. First eight month output comes to 83 million gal., slightly lower than the 83.5 million gal. produced in the corresponding period in '55.

Passenger car sales set new record for August when 34,088 units were sold for $93.6 million. This compares with 33,450 sold a year earlier for $86.7 million. Cars sold in the January-August period total 305,205 (+5.8%); retail value $845.7 million (+12.7%).

What's on the scrap metal heap. At the end of June dealers in non-ferrous scrap held more copper, but less aluminum, magnesium, nickel, lead and zinc than they did two months earlier. At month end: copper 10.1 million lb. (+14.2%); aluminum 2.5 million lb. (-15.9%); magnesium 7,120 lb. (-47.6%); nickel 154,600 lb. (-19.8%); lead 7.8 million lb. (-20.4%); zinc 3.9 million lb. (-12.6%).

A look at the pace of U. S. business. Lates' weekly statistics show: Steel ingot output running 7.8% above year-earlier level; electric power +6.6%; crude oil production +3.2%; coal +6.2%; car loadings +1.7%; bank clearings +9.8%; industrial stock prices +9.7%. Rising industrial production, high level of consumer buying, plans for increased business spending on new plant and equipment, confirm prospects for a strong fourth quarter, states a major New York bank.

Freight car loadings show slackening rate of growth. September loadings were only 1.2% higher than a year ago compared with increases in earlier months ranging from 9% to 12%. Carried in fewer cars: Grain products, coal, sand, lumber, autos and items in less than carload lots. But there were still increases in car loadings of grain, iron ore and pulpwood, the largest contributors to the year to date increase of 9.9%.

Farm implement sales in '55 reverse two-year-long downtrend. Wholesale value of sales reached $155.1 million, 6% higher than year earlier total though still well below 1953's $238.1 million and 1952's $250.3 million. Retail prices add another 22% on new implements and 33% on repair parts.

Which farmers invested most heavily in new equipment? Ontario $43.8 million (+11.3% over '54); Alberta $28.8 million (+2.8%); Quebec $21.7 million (+28.1%); Manitoba $15.6 million (+0.7%); Maritimes $6.5 million (+30%); B.C. $5.2 million (+23%); Newfoundland $843,900 (+27.7%). Only Saskatchewan sales dropped — down 11.4%, totaling $33.1 million.

Exports of oats, barley, rye, flaxseed off sharply in 1955-56 crop year. **Oats** exports dropped to 3.6 million bu., lowest since 1929-30 and a fraction of the 21.6 million bu. shipped abroad —largely to the U. S.—the year before. **Barley** exports totaled 64.4 million bu., 16.6% lower than last year due to loss of U. K. market for feed barley. **Rye** exports at 12.9 million bu. up 38.7% with bigger U. K. demand for rye. **Flaxseed** exports totaled 11.6 million bu., almost double year earlier shipments. Combined export decrease from last year is 19% but unchanged from 10-year average.

Major Weekly Indicators

	Latest Week	Week Ago	Month Ago	Year Ago
Department store sales‡ % ch. from year earlier	+6.9%	+10.1%	+9.1%	+13.6%
Carloading totals (cars)	‡105,292	96,305	*145,886	‡122,057
Eastern Canada (cars)	‡ 70,637	62,548	* 91,426	‡ 80,745
Western Canada (cars)	‡ 34,655	33,757	* 54,460	‡ 41,312
Iron and steel (mfg.) (cars)	‡ 1,782	1,650	* 2,652	‡ 1,803
Ores, concentrates (cars)	‡ 17,175	13,644	* 20,308	‡ 14,202
Base metals (cars)	‡ 811	749	* 1,141	‡ 952
Lumber, timber plywood (cars)	‡ 5,127	4,706	* 7,506	‡ 7,665
Cement (cars)	‡ 1,239	1,437	* 2,026	‡ 2,142
Passenger car production (no.)	4,242	3,617	713	3,935
Truck production (no.)	1,539	1,198	*1,598	646
Bus. fail., 4-wk. moving av. (no.)	22.0	19.8	22.3	22.0
Chartered Bank				
Personal savings ($ millions)	6,046	5,998	5,972	5,772
Loans outstanding ($ millions)	5,290	5,284	5,315	4,483
N.H.A. mtge. holdings $ millions)	449	445	432	211
Bank of Canada holdings of				
Securities ($ millions)	2,370	2,425	2,384	2,281
Short-term govern. ($ millions)	992	1,043	1,018	1,250
Long-term govern. ($ millions)	1,343	1,348	1,338	969
Other securities ($ millions)	17	17	12	52
Canadian dollars (U.S. cents aver.)	102.622	102.602	102.347	100.010
T.S.E. industrial index	472.60	468.27	473.85	420.33
Yield, 114 stocks	4.76%	4.76%	4.62%	4.32%
Bank Clearings				
Montreal ($ millions)	673	921	645	493
Toronto ($ millions)	756	1,079	882	657

‡ Nine-day end of month period.
* Ten-day end of month period.

Facts by the Month

	Latest Month Available	One Month Previous	Two Months Previous	One Year Previous
WHAT WE PRODUCE—				
In all industries (Index)	284.9	298.4	282.9	263.7
In factories (Index)	286.4	304.1	288.9	265.1
Total nondurable goods (Index)	240.5	261.0	244.4	230.1
Food & bev. (Index)	267.1	274.2	237.3	270.1
Textiles (Index)	130.4	193.0	174.3	136.3
Clothing (Index)	141.5	153.4	157.5	131.2
Chemical products (Index)	306.7	317.4	313.4	287.9
Total durable goods (Index)	358.2	371.4	356.2	326.0
Iron & steel products (Index)	322.9	335.8	332.2	273.8
Primary iron & steel (Index)	405.7	421.8	418.8	336.4
—From mines (Index)	279.3	274.2	256.4	264.9
Metals (Index)	147.1	154.0	146.4	142.9
Nonferrous smelting, refining (Index)	297.9	285.4	261.5	242.5
Gold (Index)	98.7	109.2	105.3	107.5
—From farms				
Hogs graded (000)	375	523	456	365
Cattle delivered (000)	143	169	138	130
Flour (Index)	146.1	137.6	136.7	116.7
—From sea				
East Coast catch ($000) a	8,189	8,549	7,771	7,714
W. Coast catch ($000)	5,893	3,163	1,970	5,070
—From forests				
Newsprint (000 tons)	570	532	536	540
Pulp (000 tons)	913	843	818	849
—In powerhouses				
Electricity (Index) (seasonally adjusted)	326.0	323.9	317.4	290.2
WHAT WE SELL—				
Retail sales ($ millions)	1,185	1,287	1,237	1,112
Dept. store sales ($ millions)	91.4	78.8	99.5	81.3
*Wholesale sales ($ millions)	673	661	594	590
Mfrs. outstg. orders ($ millions)	2,712	2,732	2,815	2,367
*Pass. car sales (units)	34,088	42,076	48,874	33,450
WHAT'S ON HAND—				
Mfrs. inventories ($ millions)	4,525	4,517	4,455	4,070
Dept. store stock sales ratio	2.8	3.6	2.8	3.0
SPENDING, SAVING POWER—				
Labor income ($ millions)	1,223	1,215	1,169	1,085
Dividend payments (Index) (annual rate)	307.8	303.4	301.8	269.2
JOBS—				
Persons with jobs (000)	5,833	5,789	5,647	5,941
Jobless seeking work (000)	103	102	117	131
Do (% of labor force)	1.7%	1.7%	2.0%	2.3%
CONSTRUCTION—				
*Contract awards ($ millions)	215	490	390	386
FOREIGN TRADE—				
Exports ($ millions)	426	430	434	367
Imports ($ millions)	475	494	492	430
MONEY—				
*Money supply ($ millions)	5,821	5,840	5,684	5,808
*Cheques cashed ($ millions)	16,402	17,852	16,855	13,935
Life insurance sales ($ millions)	252	281	286	207
Notice deposits ($ millions)	6,395	6,340	6,329	6,236
Current public loans ($ millions)	5,307	5,297	5,286	4,281
PRICES—				
Consumer price (Index)	119.0	119.1	118.5	116.3

Index based: production wholesale sales 1935-39=100; consumer price index 1949=100; manufacturers' inventories outstanding orders Dec., 1952=100.

STRATEGIC MATERIALS—Production and Supply—

	Latest Month	Month yr. ago	Yr. to date	% chge. yr. to date
Steel ingots and castings (000 tons)	442	381	3,008	+21.7%
Primary copper (000 tons)	31.1	26.5	205.9	+12.4%
Nickel (000 tons)	15.1	14.5	104.7	+1.8%
Cement (000 bbls.)	2,752	2,429	16,543	+19.9%
*Lumber (millions fbm.)	794	786	4,655	—1.4%
*Lumber exports (millions fbm.)	372	402	2,312	—12.6%

*New item this week.

Date of issue for your file. The Financial Post, Oct. 20, 1956.

Lower Air Fares Nov. 1 For Immigrants

MONTREAL (Staff) — This week airlines got the green light on a scheme that will go a long way to filling those empty seats on Atlantic winter services.

From Nov. 1, the much-discussed Immigrant Flights will begin from Europe to Canada and the U. S. The traveler gets 40% sliced off the normal tourist fare —plus a first-class passenger's baggage allowance.

That means:

London to Montreal will cost $171 and a 66-lb. allowance. (Tourist 44 lb.)

The decision is good news to the airlines and a blow to sea carriers. Over recent years the airmen have bitten great chunks out of the ocean-going passenger lists. New ships are being built to carry more and more tourists and fewer first class. So far, immigrants have stuck largely to the sea.

Now the airlines have a strong new selling point. While sea passage means almost certainly ten days out of work and a certain number of additional expenses, an air trip means next to no time off the payroll—assuming the immigrant can get a job.

An ideal example would be a man coming to Canada with an assured job, who could finish work Friday evening and clock in to his new job Monday morning.

While that may be a little farfetched, it remains a fact that the period between jobs is one of the hardest hurdles to leap for a man changing countries.

The new fares will remain in force until March 1, 1957, when the heavy summer traffic begins.

From the entrance to Canada —Gander or Montreal—the traveler pays normal fares to his destination.

Italian Ship For Gt. Lakes

A fast Italian motor-vessel, the Capo Faro, has begun regular service between the Great Lakes and the Mediterranean countries of Western Europe. Capable of carrying 1,500 tons of cargo, she is the first of four vessels which will operate the regular service.

The Capo Faro has just completed a maiden voyage from Italian, Spanish and Portuguese ports, carrying preserves, cherries, marble, onions, olives and port wine. She will call at American and Canadian Great Lakes ports before returning. Agents are **Montreal Shipping Co.**

You Need A New Topcoat!

You may not realise that you do, but you will as soon as you clap eyes on one of the finest collections of topcoats in Canada — at Simpson's, The Store for Men. Take, for example, this Crombie Sealskin, loomed in Aberdeen from the finest all-wool yarn. Pockets either slash or patch, and a choice of navy, grey, medium blue, or blue-grey.

Each, $75

Still undecided? Come in and convince yourself.

The Store for Men — Second Floor Dept. 260

Simpson's

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Ont. Beet Men Make 20% More

Southwestern Ontario sugar beet growers' total returns of some $3.1 million on the 1955 crop will be more than $500,000 higher than on the 1954 crop, announces **Canada & Dominion Sugar Co.**, Chatham, Ont.

From the sugar tests on the first 450 truckloads of 1956 crop delivered to the Chatham and Wallaceburg, Ont., plants, company officials predict farmers' first payments will be higher this year. First deliveries at Chatham are averaging 17.3% sugar content, compared to 14.7% last year.

Growers delivering 17% sugar beets in October and November will receive a guaranteed $12 per ton minimum as their first payment in mid-November and December.

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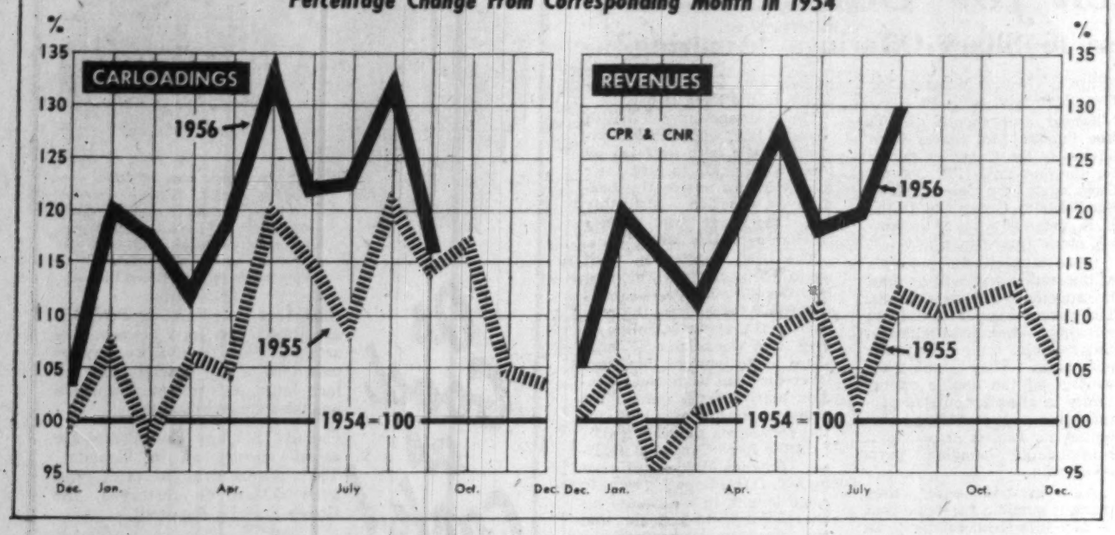
How Rail Revenues Soar With Growing Traffic

Percentage Change From Corresponding Month in 1954



For details, see story on p. 11.

U.S. Demand May Boost College Grad Hiring Price

(Continued from page 1)

been directed to draft persons over 25½ "only with caution." If a man is the father of a family, "hardship is to be presumed."

—The draft legislation provides for 250,000 technical exemptions; of these, only 150,000 have been taken up. Canadians who went to work in the U. S. in technical jobs would presumably be considered most favorably for inclusion among the remaining 100,000.

—Some draft boards have recently handed out — on their own discretion and without directives — one-year exemptions, apparently on the assumption that draft regulations will shortly be changed.

U. S. corporations have been feeling the engineer shortage as keenly as Canadian groups.

With all these straws in the wind, some U. S. companies apparently feel they'll soon have an entirely different draft situation as background for propositions to put before Canadian graduates.

And with American-type salaries to offer they feel they can attract a good proportion of the ones they go after.

Limiting Factor

One factor which will limit the effectiveness of the American appeal: In a good many cases it will be delivered too late.

American recruiters are geared to start their drive next February; Canadian teams start laying propositions before fourth-year students this month. By the time the U. S. teams get operating in Canada, many of the most promising students will have been hired.

But the timing of the recruiting drive is something which could be remedied in 1957-58. And since the shortage of technical personnel is likely to last through 1960, the Americans would have incentive to change their timing.

Who are these U. S. companies coming to Canada for engineers?

Since the inquiries and arrangements for on-campus interviewing are made in confidence, Canadian university placement officials don't like to name names for publication. One official said: "A good cross-section of U. S. manufacturing will be represented."

One name which appeared frequently: **U. S. Steel.**

Here's The Financial Post survey, showing likely U. S. recruiting this year. Placement directors emphasize that figures given are the best rough estimates that can be provided now.

University of Toronto

Last year 189 companies, of which about 25 were American, made arrangements with Col. J. K. Bradford, the university's placement service director, to conduct on-campus job interviews.

"This year there'll be over 200 and at the present rate 15%-20% will be American," Col. Bradford says. He estimates there will be about 330 engineering graduates, 40 in commerce, 15 in business administration and 40 in engineering and business. For most of these, Canadian offers will likely be in the neighborhood of $360.

"But for most of these, the U. S. offers will run from $425 to $450 with the heavy metal industries talking $450.

"The steel strike pushed salaries up right across the board. A good many companies down there are working on cost-plus contracts; they just add salary costs onto operation costs.

"Some of them aren't worrying too much about the money, but they've got to have engineers."

McGill University, Montreal

C. M. McDougall, director of the McGill Placement Service, says 151 Canadian and 19 U. S. employers interviewed at McGill last year. They were paying about $350 for engineers, $325 for commerce grads and slightly less for general arts graduates.

This year Mr. McDougall estimates that 175 Canadian and 25 U. S. companies will interview students.

"The average Canadian engineering salary will probably settle between $375 and $400 a month; the U. S. range will be from $430 to $470 a month. Commerce usually lags $25 a month lower than engineering; arts slightly lower than that."

He estimates that the spring graduation will produce 300 engineers, 80 commerce grads.

University of Montreal

This is the largest Canadian university but its graduates, says André Bachand, director of public relations, are generally reluctant to settle permanently outside Quebec "because of the difficulties they encounter bringing up their children."

Last year 62 Canadian companies recruited on the University of Montreal campus offering an average salary of $354 for engineers; this year 75 are likely to do so, offering an average salary of $365. Two U. S. companies recruited last year; five are likely to do so this year.

Queen's Kingston, Ont.

H. J. Hamilton of the university's employment service, told The Post that about 150 companies interviewed students at Queen's last year, offering $345 to $350 for engineers, slightly lower salaries for commerce and arts graduates. Only a small number of these would be American companies.

"I'm well aware of the incipient threat of American competition for our university graduates. As yet, they seem to have confined their attentions to the big universities. But it may not be so in 1957-58."

University of Western Ontario, London

About 100 companies recruited on campus last year, says Dean of Men T. A. Hoskin. Of these "four or five" were U. S. companies. It's expected we will have as many, or more, Canadian companies again this year with the possibility of a few more American companies as well."

Dean Hoskin is one of those placement officials who do not look with apprehension toward American competition for Canadian engineers.

"I do not expect an influx of American companies recruiting on our campuses. There is a growing feeling among Canadian university graduates that long-range opportunities in Canada are just as great as those in the U. S."

University of British Columbia, Vancouver

J. F. McLean, director of personnel services, notes that UBC does not permit firms to interview on campus before Christmas.

"Most American companies, we have found, do not wish to interview until after the end of March and by that time most of our students have been hired. It is a little too early to say very much about salaries for this year. We would anticipate 150 Canadian firms recruiting graduates, only a few American firms."

University of New Brunswick, Fredericton

B. F. Macauley, business manager, gives these estimates:

Fifty Canadian companies will recruit on campus this year (as against 40 last year) and six U. S.; number of engineering graduates who will be available, 100; number of arts grads., 35; last year's average engineering salary, $325; this year's engineering salary (Canadian offer) $350-$375, (U. S. offer) $400-$425.

Ottawa Opens New Campaign To Lure U.S. Immigrants Here

(Continued from page 1)

"It has been said that the number of people of Canadian ancestry in the U. S. exceeds the present population of Canada.

"We are not asking for them all back. But what we do need today, however, is a northward flow . . ."

To Americans thinking of coming to Canada, he held out "many and golden opportunities."

He pointed out:

1. No adjustment problem for an American.

2. "The same language; much the same press, radio and TV; the same money system; the same sports.

3. "The same general outlook on life."

Mr. Sinclair also underscored the view expressed in many Financial Post articles: The present over-all in-flow of immigrants isn't big enough.

"In recent years," he said, "we have been attracting immigrants at about the annual rate of 1% of our population—but this rate is not nearly sufficient for us.

"But immigrants are not as easily obtainable in this century (because) European countries have developed. . . .

"So our problem today is much more difficult than your problem when you had the same need for greater population."

To combat the rise of Russia's industrial power, he told his audience he thought Canada and the U. S. ought to work together. He said resources on this continent must be utilized fully.

"Last century the great area for opportunity and advancement for men and women of adventurous spirit lay in the west in the opening up of a continent.

"Today the same challenge, the same opportunity lies in the Canadian northland — which is why I paraphrase Greeley's famous dictum to young Americans and say:

"'Come North, young man'."

PRICES

ALSO SEE TRENDS, PAGE 2

Copper cut 2c to 37c lb. by two leading U. S. custom smelters as Northern Rhodesian copper drops to equivalent 35c lb. and spot bid in London is 35 1/8c. U. S. producers' price still 40c, Canadian price 39c.

Copper scrap dropped 2c by midweek to 32c lb. for No. 1.

Tin up to $1.07 lb., 3c more than week previous and 3c less than end of month.

Bread hiked 1c per loaf this week by **Canada Bread Co.** bringing price of 24-oz. loaf to 21c. Increase limited to Southern Ontario to date.

Pork prices expected to remain above last year to end of year. Hogs selling at $29.87 against $26 in 1955. Production in September lower than year ago, for first time.

Beef easing seasonally particularly in lower grades. Top quality steaks and roasts down as much as 13c lb. retail mainly because stocks not selling at 90c-95c level.

TV sets hiked about $5 by **RCA Victor** on all but one of 1957 21-in. and 24-in. sets. Portable and smaller sets not increased.

GREEN BAY MINING & EXPLORATION LTD. had current assets of $515,832 including $34,937 cash and $480,000 on call with foreign investment company, at June 30, 1956. Current liabilities were $19,752.

In a report to shareholders, President Michael Phillet states that the Herb Lake, Man., lithium property should be operating by the start of 1958. Two firms have been engaged to prepare lithium market surveys in both U. S. and Britain.

Cost of the proposed concentrator for Herb Lake would be about $2.2 million, Mr. Phillet says. The company has secured private financing for this project.

Look For It Here

October 20, 1956

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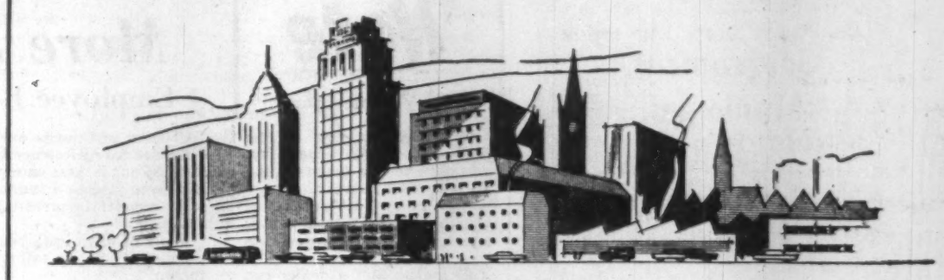

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Seafarers' Union in Fight, Engineers Ask Crackdown

By CLIVE BAXTER

MONTREAL (Staff) — A new labor war may break soon in Canadian shipping. It could mean the end of Hal Banks' unchecked waterfront rule.

Banks' handling of union affairs in his Seafarers' International Union has long been subject for bitter criticism. It has been charged an estimated $500,000 in dues pours annually into the spanking-new Montreal office building of SIU and that most union members have no say in its use.

This week the Eastern District of the National Association of Marine Engineers of Canada banged in a demand that the Canadian Labor Congress do something about SIU's "undemocratic" practices.

And it also made a bid for support of the strong Canadian Brotherhood of Railway Employees in the demand for a crackdown on SIU.

The evidence:

A transcript of the hearing before Canadian Labor Relations Board in Ottawa on Oct. 3, when SIU applied for certification to bargain with **Toronto Towing and Salvage Co.**

The hearing was to be a fairly straightforward affair. The company and the National Association of Marine Engineers, the latter on behalf of two of its members employed by the company, were opposing certification. To the hearing came Leonard "Red" McLaughlin, a fiery New Zealander — Hal Banks' right-hand man.

As the hearing progressed McLaughlin found himself in hot water.

After the proceedings had begun John McGough, Eastern District Secretary of the Marine Engineers, told the board he opposed SIU's certification as half of SIU "members" were not union members at all but, in fact, only carried work permits. These cost as much as the dues of a book member—i.e. a member with full voting privileges—but did not carry the same rights.

MATERIALS HANDLING

A Toronto Company has a vacancy for a Sales Engineer with experience in Materials Handling and invites applications for the position.

Remuneration will be by Salary and Commission with adequate allowance for out-of-pocket expenses.

Applications, which will be treated in confidence, should give details of education, training and experience and should be addressed to

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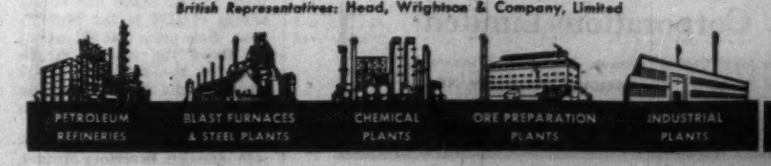

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TORONTO GENERAL TRUSTS

Note

by Vincent Egan

A further increase in the Bank of Canada's discount rate was expected by dealers in the Toronto and Montreal money market this week. Yield on last week's sale of treasury bills averaged 3.26%; discount rate has been 3.25% since Aug. 9. This means that a dealer can make a profit on treasury bills, even if he has to go to the lender of last resort, the Bank of Canada, for a loan at the 3¼% rate, using the bills as collateral.

One dealer, active in the money market, predicted that the treasury bills would sell this week at yields of from 3.30% to 3.50% if nothing were done — but that something would be done. "Something" would be an increase in the bank rate.

Chartered banks, which had been charging investment dealers 2¾% for day-to-day loans, boosted the rate to 3% Tuesday as the supply of money dwindled. Some investment dealers had to turn to the Bank of Canada for loans at the 3¼% rate.

Yields continue to rise on short and medium term Canada bonds. Only strength apparent in this field is in the extra-long 3¾% bonds of 1998. Here, there is virtually only one source of supply — the Bank of Canada.

* * *

Canadian investors were offered stock this week in another company hitherto wholly owned in the U. S. Controlling interest in **Fruehauf Trailer Co. of Canada,** which has more than 50% of the Canadian truck-trailer equipment market, will remain with the U. S. parent company, however.

The 100,000 shares and $3.5 million 5¼% debentures were over-subscribed the day the offering was made.

A company official said that declaration of a dividend on the n.p.v. stock, offered at $8.50 a share, would probably await completion of Fruehauf's new plant in about a year.

Employees at Fruehauf's Weston, Ont., plant were among the first to buy stock, taking up 10,500 of the 100,000 shares offered by **McLeod, Young, Weir & Co.**

* * *

A secondary offering of 121,860 n.p.v. preferred shares of **Canadian Drawn Steel Co.,** Hamilton, has been made by **Fry & Co.** Shares carry a cumulative dividend of 60c, plus a participating feature—one cent per share for every $14,784 by which annual net profit exceeds $150,000. Net profit last year was $326,122, and in first-half 1955, $159,035.

* * *

Tempo of new financing is picking up, in unison with the stronger stock market. In addition to the Fruehauf Trailer and Canadian Drawn Steel issues, new issues include $15 million **Canada Cement** 20-year 5¼% debentures at par, **Nova Scotia Light & Power** $1.9 million 5% preferred; **Pembina Pipe Line** $1.4 million 5% convertible debentures; **Province of Saskatchewan** $8 million 4½% 20-yr. debentures (at 96 to yield 4.81%); $35 million **Quebec Hydro** debentures, to be sold in the U. S.

Other issues of recent weeks have gone to a premium. **A. V. Roe (Canada) Ltd.,** which announced its first 20c quarterly dividend, had risen from its original offering price of $16 to $18⅝-$19 by mid-week.

Nevertheless, dealers say it is still a buyer's market. Otherwise, they say, a company of Canada Cement's stature would not have paid 5¼% for its money, nor would it have agreed not to call debentures for 10 years for refunding at a lower rate.

* * *

Evidently in preparation for new financing, shareholders of **Canadian Tire Corp.** this week were asked to approve an increase in authorized capitalization to 110,000 from 100,000 n.p.v. common shares. Company recently launched a long-term multi-million-dollar expansion program in Toronto, with the first section of a new warehouse to be completed early in 1957.

Stock is quoted this week at $116-$130, traded as high as $136 recently. Company has no funded debt; 69,690 par $20 5% preferred shares were outstanding at latest report. Net profit in 1955 rose by 25% to $11.68 per common share.

Another item of business before the Oct. 19 shareholders' meeting was apparently to allot one incorporator's share to a director, thus clearing up a legal oversight dating back to 1927. But the proposed bylaw was couched in a 225-word sentence that has mystified many shareholders.

If it's really necessary to draft bylaws in incomprehensible language, corporations might give their shareholders some help in breaking the code. It doesn't take long to write an explanatory letter.

* * *

Over-the-counter specialists, **Intercity Securities Corp.** of Toronto, have begun to receive their first inquiries from investors who want to buy shares of **Investors Syndicate of Canada Ltd.** Stock of ISC is being distributed on a share-fore-share basis Oct. 31 to shareholders of its U. S. parent, **Investors Diversified Services.**

Investors Syndicate was quoted recently on U. S. over-the-counter markets at $13 to $14 on a when-issued basis. It earned 88c a share last year.

Outstanding capitalization of IDS at latest annual report consisted of 879,182 non-voting Class A shares, and 574,541 voting common shares; capitalization of ISC would be the same. Control is held by John and Clint Murchison of Texas.

* * *

Alleghany Corp., another major shareholder of IDS, recently announced its agreement to sell 53,000 non-voting shares of IDS to the Murchisons. Sale price was $81, about $5 above the market at the time of the sale, and $1-$2 above recent market following announcement of distribution of ISC shares.

Investors Syndicate of Canada manages **Investors Mutual,** Canada's largest mutual fund.

New Issue

$2,029,000

Nova Scotia Light and Power Company, Limited

5% Cumulative Redeemable Preference Shares
(Par Value $50 per Share)

These Preference Shares will rank *pari passu* with all the outstanding Cumulative Redeemable Preference Shares of the Company. The rights, preferences, priorities, restrictions, conditions and limitations attaching thereto are more fully set out in the offering circular.

Transfer Agent: The Eastern Trust Company, Montreal and Halifax.
Registrar: Montreal Trust Company, Montreal and Halifax.

In the opinion of counsel these shares will be investments in which The Canadian and British Insurance Companies Act, R.S.C. 1952, c.31, states that companies registered under Part III thereof may, without availing themselves for that purpose of the provisions of sub-section (4) of Section 63 of said Act, invest their funds.

We, as principals, offer these Preference Shares for delivery if, as and when issued and accepted by us, subject to prior sale and change in price and subject to the approval of counsel of all proceedings.

Price: $48.50 per Share

The amount of the dividend payable on March 1, 1957, the first dividend date, will be 83 cents per share.

It is expected that certificates will be available for delivery on or about November 1, 1956.

A copy of the offering circular will be furnished on request.

Royal Securities Corporation Limited

Montreal Toronto Halifax Saint John Quebec Ottawa Hamilton Winnipeg Calgary Edmonton Vancouver Victoria Charlottetown St. John's, Nfld.

AT FRUEHAUF, AVRO

By PAUL S. DEACON

More Stock for Canadians

Employee Response to Share Offerings "Amazing"

Concern in Canada over the extent of foreign ownership of some of our largest enterprises has given rise to a number of suggestions for correcting the situation.

Many of them have been the product of emotion rather than reason.

They ignore our need for foreign help in financing Canada's growth.

Such suggested solutions as legislation to force foreign-controlled firms to sell part of their stock in this market, or to restrict the industries in which foreign money can be invested, would be some of the best ways to scare off foreign capital completely.

There is no doubt that most Canadians would like to see increasing Canadian participation in the ownership of industrial and resource development companies here.

But the way to do it is to remove obstacles which work against Canadian ownership and to encourage, in a positive way, the investment of Canadian funds in ownership securities.

This type of approach is backed by most thinking Canadians.

In speeches just in the past few days, for instance, Trade Minister C. D. Howe and Toronto Stock Exchange President Arthur J. Trebilcock have pointed out the benefits of such a policy.

A couple of recent cases illustrate methods by which Canadian ownership can be broadened, without impairing the incentive for foreign capital to invest in Canada.

This week, **McLeod, Young, Weir & Co.** heads a group of dealers offering debentures and stock in **Fruehauf Trailer Co. of Canada,** a company which until now has been wholly owned by a U. S. company, **Fruehauf Trailer Co.**

Fruehauf in the U. S. still retains control. Only 100,000 of the 900,000 shares now outstanding are being offered in Canada. But it does open the way for participation in the company's future progress for those who wish to do so.

Earlier this month, **A. V. Roe Canada Ltd.** shares were offered to the Canadian public for the first time (FP, Oct. 6). Once again, the parent, **Hawker Siddeley Group Ltd.** in the U. K., retained most of the voting stock (more than 84%).

In both cases, the proceeds of the stock issues will be used to augment company funds. The parent companies did not sell stock they held already, thus reducing their stake in the enterprise. They took advantage of the double opportunity in allowing outside participation — providing new money for further growth, and introducing Canadian part-ownership.

Also in both cases, they made it possible for employees to buy into their company. In Fruehauf's case, about 10,500 shares were sold to about 75 employees. In Avro's stock offering of 500,000 shares, about 45,000 went to 900-1,000 employees. Thus average investment per employee was about $1,200 in the case of Fruehauf, $800 in the case of Avro Canada.

No special inducements were made to attract employee stock purchases. They were merely informed that stock was being offered to the public, that applications could be made by those who wanted stock. The price to employees was the same as for all other investors.

But the response in both cases amazed company officials. It showed there was real interest in the plant as well as in the office.

This is just one way in which greater Canadian participation may come about in the future.

Another Way

Another way, is the issue of the shares of Canadian subsidiaries to shareholders of the parent company.

This is a little more drastic, because it removes the Canadian operation as a source of earning power and growth for the parent company, except to the extent that the Canadian company and the former parent may continue to do business after the separation, and there may be some continuation of common ownership.

Aluminium Ltd., originally a subsidiary of **Aluminum Co. of America,** is an outstanding example of a subsidiary set free (common ownership through major shareholders has been drastically reduced as a result of a U. S. court order, as well).

Husky Oil & Refining is a more recent example, a majority of its shares having been held originally by **Husky Oil Co.** in the U. S. Both Canadian Husky and Alcan have a large number of Canadian shareholders now.

The latest such "spin off," as such a share distribution is termed in the investment community, has been carried out by **Investors Diversified Services Inc.** of Minneapolis. It is issuing to its shareholders its shares in **Investors Syndicate of Canada Ltd.,** Winnipeg, which sells savings certificates and manages Canada's largest mutual investment fund, **Investors Mutual of Canada Ltd.** (FP Oct. 13).

The Murchison brothers in Texas and Robert R. Young's **Alleghany Corp.** hold most of the voting stock and two thirds of the non-voting stock of IDS, so they will receive that proportion of Investors Syndicate shares. If they or other IDS shareholders decide to sell some of the stock they get in the Canadian subsidiary, undoubtedly there will be an increase in its holdings among Canadian investors.

These two methods of encouraging Canadian ownership were included among possible ways of broadening ownership in a speech by Governor James E. Coyne of the Bank of Canada last year.

Another, he suggested, was larger investment in stocks by Canadian insurance companies and pension funds. This method has considerable possibilities, too, but most companies and funds have felt, so far at least, that stocks don't fit too well into the pattern of their operation.

One thing investors in Canada might bear in mind, of course, is that owners of stock in the foreign parents of Canadian companies don't automatically clap their hands when a share in the Canadian operation is offered to Canadians.

For instance, **Triad Oil Co.** recently issued notes convertible into stock. The offering was made in Canada, and raised protests abroad. Commented the U. K.'s Stock Exchange Gazette:

"Despite the large number of (Triad) shareholders in this country, only a small proportion of the notes appears to have been made available here, and the only way a British investor can now get hold of the stock is by paying a premium of about $6½ to Canadian holders who were able to subscribe to the issue at par.

"The disappointed British shareholders, who have demonstrated their faith in Triad by their willingness to risk their money in this inherently speculative situation, justifiably feel they have been poorly treated over this issue."

The U. K. publication went on to point out, however, that half the $30 million issue went to **British Petroleum** (the parent) and that "it is politic to give the Canadians a large share of an issue of this kind. Over the long term, the Canadian market must remain the primary source of funds for the company's development."

In the Avro Canada stock issue, Hawker Siddeley Chairman T. O. M. Sopwith went to some length, in a letter to his shareholders, to explain that the long-term interests of the company would be served best by allowing some Canadian ownership in its Canadian subsidiary.

"Some of you may feel that, as shareholders of long standing in the Hawker Siddeley Group, you should be allowed to participate directly in the future of our Canadian group by being given preferential rights to subscribe for the new shares in the A. V. Roe Canada Ltd." Hawker Siddeley directors came to the conclusion that this wasn't practicable, he said, particularly in view of the fact that only 500,000 shares were being offered.

Foreign parents which do allow Canadian participation in their subsidiaries here are undoubtedly doing their own stockholders a favor. But the favor still isn't so obvious that they don't have to sell the idea aggressively.

It's a case of foregoing something now, in the interests of even better things over the long term. It's to the credit of managements of these foreign concerns that they have seen the importance and long term benefits of increasing the degree of Canadian participation in their affairs.

The "card money" reproduced here was the usual currency of French Canada in the early 1700's. These cards, now extremely rare, were as good as cash and normally redeemed yearly by the French Treasury Department.
Photo courtesy The Royal Ontario Museum.

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NEW ISSUE

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To be dated December 1, 1956

To mature December 1, 1957 - 1976

Price: To yield 5.40%

Circular on request.

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Try This Trust Test!

1. Household goods and furniture automatically belong to the surviving spouse on the death of a husband or wife. *True* ☐ *False* ☐

2. A cash bequest to an executor is subject to income tax in his hands. *True* ☐ *False* ☐

3. A will is revocable during the testator's life. *True* ☐ *False* ☐

4. The Succession Duty rate is the same for all beneficiaries regardless of the degree of relationship to the deceased. *True* ☐ *False* ☐

5. The Canada Trust Company has branches in 15 major Canadian cities. *True* ☐ *False* ☐

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1. False 2. False 3. True 4. False 5. True

Complete explanations of these answers will be supplied upon request.

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CANADA'S ORIGINAL MUTUAL FUND
HAS DECLARED ITS
95TH CONSECUTIVE QUARTERLY DIVIDEND
ELEVEN CENTS PER SHARE
PAYABLE NOV. 1, 1956 TO SHAREHOLDERS OF RECORD OCT. 15
GROWTH IN POST-WAR ANNUAL DIVIDENDS PER SHARE
1945..17¢ (UP 123%) 1956..38¢
CASH DIVIDENDS EXCEED $22,000,000 SINCE ORGANIZATION
Canadian Investment Fund, Ltd.

Why They're Moving

Facts and comment on what's going on in the market and rumors behind some of the moves.

By FRANK KAPLAN

Bank stocks pace a continued moderate rise in industrial shares as prices come back from a two-month slump. Banks have been features throughout the year. Overseas buying carried bank shares sharply higher earlier in 1956 with considerable interest arising from rights issues by some of the banks.

However banks sold off from their highs fairly steeply during the decline. A study of Canadian bank shares by Ronald D. Smith & Co., shows declines to almost 18% in leading banks. General market dip was about 10%.

One reason for this greater decline is said to be the fact that bank shares cannot be pledged as collateral for bank loans. With money tightening up in Canada, many investors liquidated bank shares while trying to hold on to other blue chips. It would appear that this margin provision on banks is outdated since the last Bank Act changes removed the double liability on bank shareholders. Also some banks e... ...ed the ... stock provision which tended to reduce liquidity.

Here's what's happened to Canadian bank shares.

	Latest Price	Oct. 5	1956 High	1956 Low
	$	$	$	$
Bank of Montreal	53½	51	62	47¼
Canadienne Nationale	41	39½	47	39
Bank Nova Scotia	58¾	56½	68½	53½
Canadian Bank of Commerce	54	51	59	44½
Imperial Bank	54	54½	63	53
Royal Bank	66¼	61¾	68	56¼
Toronto-Dominion	44½	44	56½	40

* * *

THE STREET IS TALKING ABOUT—a resurgence of interest in paper shares. However, new buying is highly selective, with a few individual issues stepping well ahead of the bulk of the list for strong gains. **Powell River** a leader with a climb to $48¼ from a recent $42¾ level. **St. Lawrence Corp.** surges ahead to $73½ from $64 recently. **International Paper** at $114 is up from $105.

News that finance companies have agreed to tighten up on consumer credit has little immediate effect on share prices since much of news was discounted a few weeks ago when first meeting held between Bank of Canada and finance firm officials. **Industrial Acceptance** at $25⅞ compares with about $26¾; **Traders Finance A** at $44¼ is down from $45.

* * *

Steel Co. of Canada at $68 compares with $66 after company announces participation in lease in iron ore deposits in Labrador. **Canadian Javelin** holds ground leased, rose to $27, fell back to $24-$25 range in over-the-counter trading.

Canadian Canners continues strong after meeting called to confirm sale of control to U. S. giant **California Packing.** Canners at $43 is up from $41¼. California Packing at $43¼ compares with $42¾ recently.

A few oils attract buyers. **B-A Oil** trades heavily with a gain at $45⅝ from $42⅞. **Imperial Oil** at $57¼ is up from $56¼ and **McColl-Frontenac** at $62 compares with $60.

* * *

Some confusion over an increase in capital by **Canadian Tire** results in drop in this tightly-held issue to $117 from $123-$130 level. Company is raising authorized capital by 10,000 shares to 110,000 shares. There had been some talk of a stock split. Canadian Tire also undertaking major expansion program over next five years.

Dominion Bridge, with a $20 million expansion getting under way, bumps ahead to $21¾ from recent level of about $19½. Wide-swinging **Page Hersey Tubes** jumps for a $5 gain at $97 from $92.

A few utilities attract moderate interest. **Calgary Power** in recovery of recent sharp declines adds $2 at $62 from $60. Pace-setter **Bell Telephone** adds a fraction at $46¾ from $46½.

* * *

OTHER MARKETS—Over-the-counter dealings continue quiet with insurance issues holding at previous week's high levels. **A. V. Roe Canada** continues to creep up from recent issue price of $16, trading at about $19 and quoted in a range of $18¾-$19.

Inland Natural Gas sells down to $6¾ before rebounding to about $7½ with street talk indicating temporary delay in financing plans because of tight-money. However, obstacle now reported removed and financing expected shortly.

Succession Duties Reduced By Creating Trust for Widow

Valuable savings in succession duties may be made legitimately by arranging affairs carefully in advance, points out **Crown Trust Co.** in its new booklet, Succession Duties In Canada.

One of the most important ways to save succession duties is to create a trust in the will, giving a life interest to the widow and providing for an ultimate division of the capital among the children of the deceased.

In this way, the estate is taxed on the present value of the widow's life income and on the present value of the remainder interest the children will receive at her death.

This is calculated on an actuarial basis and permits payment of all succession duties on the whole estate upon the testator's death.

If, on the other hand, the will provides that upon the testator's death his estate be transferred outright to his widow, and if her will then provides for equal distribution among the children, succession duties would be payable on the death of each of the two parents.

In the examples shown in the accompanying table, it is assumed that the testator dies domiciled in Ontario, leaving a 65-year-old widow and three children over 18. In computing duties on the widow's estate, allowance is made for some shrinkage in capital as a result of payment of the first set of duties and other normal expenditures.

Line Five shows what the combined Ontario and Dominion duties would be on an estate which passed outright from the husband to his widow and from the widow to the three children.

Line Six shows what the combined duties would be through carefully planning a will to provide a life interest to the widow with the remainder divided equally among the three children at her death. The saving, using this method instead of the first, is shown in Line Seven.

Although the examples chosen are based on Ontario domicile, the savings would be substantial in any other province. The principles apply with even more favorable results in estates of greater value, the booklet states.

"In order to accomplish these results it is necessary that the will be carefully planned and that liquid assets be available to pay the duties upon the first death," it points out.

1. Value of testator's estate	$ 75,000	$ 100,000	$ 200,000	$ 350,000
2. Ontario & Dominion duties payable by widow	7,988	14,505	42,660	93,060
3. Value of widow's estate, say	60,000	80,000	140,000	240,000
4. Ontario & Dominion duties on widow's estate passing equally to three children	5,340	8,080	19,880	45,108
5. Total duties on both estates	13,328	22,585	62,540	138,168
6. Combined Ontario & Dominion duties by providing life interest to widow, remainder divided equally on her death among three children	5,531	10,007	29,565	69,574
7. Savings in succession duties	7,797	12,578	32,975	68,594

Canadian General Share Value Down

Canadian General Investments Ltd., Toronto, unaudited liquidation value per share at the end of the third quarter (Sept. 30) was $41.37, 1.7% lower than apparent liquidation value of $42.09 per share at June 30.

No Third Quarter Purchases By Commonwealth Internat'l

MONTREAL (Staff)—Total net assets of **Commonwealth International Corp.** at Sept. 30 were $11,554,153 or $7.82 per share, down from $12,314,538 or $8.14 per share at June 30, the end of the second quarter.

During the third quarter, the fund liquidated its holdings in two issues and sold shares in seven others. There were no purchases during the quarter.

Here is the list of transactions made in the fund's portfolio during the third quarter:

	At Sept. 30	Change Since June 30
Bell Tel.	1,000	—1,500
Cons. Mining & Smelt.	5,000	—5,000
Consumers Glass	....	—1,725
Gatineau Power	5,000	—3,000
Penmans	....	—3,000
Toronto Iron Wks., A	1,100	—900
Western Grocers, A	2,275	—225
B. C. Tel., rts.	2,000	—2,000
IAC	12,000	—6,000

Ten thousand Dom. Tar and Chemical rights were also received and sold during the quarter.

N. S. Light Pfd. Offered

MONTREAL (Staff)—An issue of $2,029,000 in 5-0/0 cumulative redeemable preferred shares ($50 par) of **Nova Scotia Light & Power Co.** is being offered by a syndicate headed by **Royal Securities Corp.** Price is $48.50 per share.

Purpose is to reimburse company for expenditures made for capital improvements.

Company's net profit for the eight months ended Aug. 31, 1956 was $1,254,158. For the full year 1955 earnings were 1,400,462 as against $1,400,670 in the previous year.

The 40,580 shares offered are part of the 80,000 shares created this October. An additional 50,000 4½% preferred shares, authorized in May of this year, will not be issued at the present time because of market conditions.

Company reports it plans no further financing this year.

After giving effect to the current issue, capitalization will comprise: $19,640,000 in first mortgage bonds outstanding; $21,187,200 cumulative redeemable preferred shares authorized of which $11,786,200 are outstanding; 1,500,00 common shares (NPV) of which 1,257,384 are outstanding.

65TH BIRTHDAY

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NEW ISSUE

$8,000,000

Province of Saskatchewan

4½% Sinking Fund Debentures

To be dated Nov. 1, 1956 To mature Nov. 1, 1976

Principal and half-yearly interest (May 1st and November 1st) payable in lawful money of Canada at the designated bank in the Cities of Toronto, Montreal, Saint John, N.B., Winnipeg, Regina, Edmonton and Vancouver at the holder's option.

Debentures may be redeemed at the option of the Province as a whole but not in part, on November 1, 1974 or on any interest payment date thereafter, at the principal amount thereof plus accrued interest.

Proceeds of $6,000,000 principal amount of the Debentures are to be advanced to the Saskatchewan Power Corporation for capital expenditures, and the proceeds of $2,000,000 principal amount of Debentures are to be advanced to the Saskatchewan Government Telephones for capital expenditures.

Price: 96 and accrued interest to yield 4.815%

We, as principals, offer these Debentures if, as and when issued and accepted by us, and subject to approval of Counsel, Messrs. Daly, Thistle, Judson & Harvey.

Subscriptions will be received subject to rejection or allotment in whole or in part and the right is reserved to close the subscription books at any time without notice.

It is expected that Debentures in interim form will be ready for delivery on or about November 7, 1956.

Nesbitt, Thomson and Company, Limited
Cochran, Murray & Co. Limited
Equitable Securities Canada Limited
Gairdner & Company Limited
Greenshields & Co Inc
W. C. Pitfield & Company, Limited

Harris & Partners Limited
Burns Bros. & Denton Limited
Dawson, Hannaford Limited
Midland Securities Corpn. Limited
Osler, Hammond & Nanton Limited

801A

Additional Issue

$15,000,000

Canada Cement Company, Limited

(Incorporated under the laws of Canada)

5¼% Sinking Fund Debentures, 1956 Series

To be dated November 1, 1956 To mature November 1, 1976

Principal and half-yearly interest (May 1 and November 1) and redemption premium, if any, payable in lawful money of Canada at any branch of the Company's bankers in Canada. Coupon Debentures in denomination of $1,000 registerable as to principal only and fully registered Debentures in denominations of $1,000 and authorized multiples thereof.

The Company will covenant to provide a sinking fund of $375,000 per annum, commencing November 1, 1959 and annually thereafter to and including November 1, 1962 and of $750,000 per annum commencing November 1, 1963 and annually thereafter to and including November 1, 1975.

Trustee: Montreal Trust Company

In the opinion of Counsel, these Debentures will be investments in which the Canadian and British Insurance Companies Act states that companies registered under Part III thereof may, without availing themselves for that purpose of the provisions of subsection (4) of Section 63 of said Act, invest their funds.

We, as principals, offer the 5¼% Sinking Fund Debentures, 1956 Series if, as and when issued and accepted by us and subject to the approval of all legal matters by our Counsel, Messrs. McMichael, Common, Howard, Cate, Ogilvy & Bishop, Montreal, who are also Counsel for the Company.

Price: 100 and accrued interest

It is expected that Interim Debentures will be available for delivery in Toronto and Montreal on or about November 1, 1956.

A copy of the prospectus, which has been filed with the Secretary of State of Canada in accordance with the provisions of the Companies Act, will be furnished upon request.

Wood, Gundy & Company
Limited

The Obstacle to Suez Accord

Negotiation of the Suez Canal issue is proving difficult, as everyone expected it would be. Yet a negotiated settlement should be possible because there is no fundamental clash of interests.

What the users want is that the waterway be kept in good repair and open to the ships of all nations; this is not contrary to Egyptian interests. What Egypt wants is recognition of its sovereignty and the profits of operating the canal; this is not contrary to Western interests except insofar as it deprives Suez Canal Company shareholders of dividends they formerly enjoyed. But President Nasser proclaimed, when he seized the canal, that these shareholders would be compensated at the Paris market price of their holdings.

What, then, is the obstacle to agreement? It isn't the financial question. Though it is quite clear that Nasser acted illegally, seeing that the canal was not a purely Egyptian project but had an international character by treaty, Britain and France are apparently disposed to accept a monetary arrangement which would be, in effect, a purchase.

The obstacle is Nasser's refusal, at the present stage anyway, to agree to international management. This looks like sheer obstinacy on his part since international management would not hurt Egypt's dignity or profits but, on the contrary, would be likely to improve Egypt's cash position by guaranteeing the smooth operation of the channel. Is Nasser, then, a fool?

The more likely explanation of his conduct is his knowledge of the political aims of Britain and France. If they had taken military action against him, their purpose would have been not to re-establish permanent occupation of the canal zone but to topple Nasser's regime and replace him with someone more pliant. This is not a military secret but common knowledge; and Nasser most certainly is aware of it.

This account of his behavior does not justify him; but it makes plain the difficulties of Britain and France. They insist on international control, though not ownership, of the canal; and they would like also to get rid of Nasser. The two operations cannot be carried out simultaneously or not by negotiation anyway. Nasser isn't going to negotiate himself out of power. Yet the French especially (and Britain is an ally of France) cannot be expected to embrace Nasser now as a friend. He has supplied both arms and instruction to the rebels in Algeria which, incidentally, is a territory NATO is pledged to defend against aggression.

It looks as if a permanent and satisfactory settlement of the Suez question may have to be sought in the general context of Middle Eastern and North African affairs. It was clumsy of Mr. Dulles to link the Suez dispute with "colonialism" since they have no real connection; Britain, as the maker of modern and sovereign Egypt, needs no lesson in bringing undeveloped and lawless communities forward to nationhood. Yet there is a connection between Suez and the future relationship of the Western nations, including the U.S., to the Arab world as a whole; and this needs clarifying. No doubt the windup of the American election campaign will enable the U.S. to play a more constructive role.

United Nations Day

The United Nations celebrates its official birthday October 24 in a blaze of public notice. The Suez crisis may mark the beginning of a new era in the life of the 11-year-old organization. The Security Council seems to be back on the job after years of being frozen by the veto.

Suez demonstrates that Great Powers possessing atomic weapons hesitate to use force, however limited, to protect their interests. Their own citizens and their allies are well aware that it's difficult to limit force under any circumstances, but especially when national passions are aroused. The very authority which the H-bomb confers on a nation inhibits military action.

Small nations, realizing this, can behave boldly and may achieve national aims without much risk. UN action can set limits to such adventures, as it did in Korea after a fight. A good case at the UN is worth many armed men these days. While these conditions appeal primarily to the Western and uncommitted worlds, they can't be wholly ignored by the Communists.

UN is clearly a necessity in a world that has the H-bomb. This is all the more remarkable since UN was created for a world in which atomic weapons were not generally known to exist. The charter was drafted before Hiroshima.

After 11 years, the UN can look back on solid achievements — mainly in the advancement of human welfare, but also in the preservation of peace. It's beginning to look as if the basic machinery of UN may in time prove adequate to both gigantic tasks.

Pattern of Immigration

There is something for Canadians to ponder in a report from the United Kingdom Oversea Migration Board, an official body. After noting that this country has received a substantial number of British immigrants in the past ten years the board goes on to say:

> Canada has not, however, had enough people from the U.K. to maintain the existing proportion of its population who are of British stock. On the present trends, the percentage of British stock in Canada will have fallen from 47% to 32% by the end of the century; in the postwar years only some 33% of all immigrants have come from the U.K. To preserve the existing proportion, an intake from the U.K. of some 50% would have to be maintained. The Oversea Migration Board estimates, therefore, that on the basis of a desired annual intake of somewhere between 160,000 and 220,000 migrants, Canada would wish, if possible, to obtain between 80,000 and 110,000 persons from the U.K. every year.

The actual number of British immigrants to Canada since 1946 has averaged about 40,000 a year. The predicted ethnic change is a mathematical certainty if the pattern of the inflow remains as at present. This change, of course, would not be a catastrophe; but it is something for Canadians to think about.

Spending to Save

When Alberta gas starts flowing into the industrial areas of Ontario and Quebec some time in 1958, Canada will save up to $50 million a year now being spent on American coal. But before that we will have had to spend several times that sum to purchase from the United States necessary supplies to build the pipe line.

That is only one example of where we are spending big today so that we can save in a big way tomorrow.

There was a similar case with western oil.

Ten years ago almost every drop of oil used in Canada had to be imported and paid for in American funds. Now we are using twice as much oil and close to 60% of our needs are being supplied by Canadian wells. But before we could do that hundreds of millions of dollars, and mostly American dollars, had to be spent on drilling and on refining equipment.

It's the same story only more so with iron ore. Ten years ago virtually all was imported. Now we are a net exporter. Now we are earning American dollars instead of spending them. But a lot of extra spending had to be done on developing the iron ore resources and getting them out.

In and around fast growing Sarnia about $350 millions has been spent on a couple of dozen petro-chemical plants. But these are now supplying the Canadian market with chemicals that, before the war, were all imported from the United States and paid for, of course, in U.S. dollars.

That sort of thing is still going on almost everywhere we look in Canada today. Millions and millions of dollars have been poured into the development of uranium, but starting this year we will have a brand new export and one that could be worth several hundreds of millions a year in a very short time. Huge sums of money have been invested in new plant and equipment so that we can turn out more copper, nickel and aluminum and to produce those new wonder metals like columbium and lithium, vital in heat resistance.

It is this new development that must be considered in any realistic appraisal of Canada's trade with the United States. Usually, in the past, we have imported more than we exported but since the end of the war and particularly in the last five years the balance against us has been growing sharply. In certain cases and with certain countries that could be a pretty serious matter. But much depends on how the borrowing is used. In our case much of it is for development and expansion, to strengthen and broaden our industrial base, to make us less dependent on others.

$55 a Week for Nothing

As a result of recent rulings by the Unemployment Insurance Commission, it will become theoretically possible for a temporarily idle Canadian worker in some industries to draw $25 a week in layoff pay plus $30 a week in unemployment insurance. The total of $55, though well below normal earnings of the men eligible for this scale of benefit, will be about 85% of the average wage of all employed Canadians. This stood at $64.49 on July 1 last.

In formal terms the major UIC decision was that layoff payments are not "earnings." This means that, as the law stands, these payments won't diminish a worker's unemployment benefits. A jobless man may make up to $13 a week by part-time labor and still draw the whole of his $30 insurance. If he contrives to earn $25 a week in this way, his UIC cheque is docked accordingly and his total income is held down to $43. But the man fortunate enough to have the advantage of a layoff plan can draw $55 without working at all.

Admittedly, of course, layoff plans are expressly intended to supplement payments from the state-administered fund. Admittedly, also, these plans are for the benefit of men out of work through no fault of their own. Just the same, the social effect of these schemes has to be taken into account; and there will certainly be some loss of incentive to work if pay for not working can reach $55 a week. The question of co-ordinating state and private payments to the unemployed needs further study by employers, workers and the Government.

Must Sell as Well as Grow

"Defiance of the laws of economics is apt to be a costly business."

That warning comes from the current commercial letter of the Canadian Bank of Commerce in a special review of the world's wheat situation. Canada, it says bluntly, is making a grave mistake in holding the price of wheat too high. We should cut now instead of waiting until we are forced to slash.

There is a world surplus, points out the bank letter, of "truly astronomical proportions" and under national wheat policies "including that of Canada" it is getting larger. Ignoring it in the hope that it will disappear of its own accord is of little use. "The problem of surplus is Canada's problem and a solution must be found."

The bank's solution is to cut prices to the minimum under the International Wheat Agreement, to get ourselves moving with the economic current instead of trying to stand against it. It admits that this may hurt but argues that the hurt will be far less, and particularly to our own wheat growers and wheat industry, than if we wait for the inevitable break.

Cutting prices on our part, it also admits, might not increase sales immediately but it would discourage further increasing of production both in Canada and in those countries where wheat growing is heavily subsidized. Both in those countries and in Canada marginal high cost producers would be forced out of wheat and into something more useful and needed. Eventually through less production and wider markets the wheat surplus would disappear and demand and output come into balance.

Painful though it may be that is our only course. We simply can't go on piling wheat into storage as we have been largely doing these last five years. We must sell it as well as grow it.

Napier Moore's

Scratch Pad

THE FIRST TIME I crossed the Atlantic by air was during the war, with a party of Canadian editors. Our baggage bore labels reading "BOMBER PRESS," for we went on a Liberator bomber, leaving from Montreal and refueling at Gander. For the take-off from the Newfoundland base we lay on our stomachs in the bombbay until the heavily laden aircraft gained safe altitude. Then, encumbered by two flying suits (a Teddy Bear model on top of a lightweight one), heavy flying boots, a "Mae West" life jacket and oxygen equipment, we scrambled up into the fusilage to sit on plank seats through a chilly night. When we stiffly disembarked at Prestwick, Scotland, we all felt that we were rather daring fellows.

We came back on a flying boat equipped with sleeping berths and a smoking room. This was luxury, and a little less adventurous.

That was 14 years ago. Now, every night, it is estimated that some 5,000 people of various nationalities are whizzing over the Atlantic as nonchalantly as if they were going downtown in a bus.

Having in recent years made a dozen crossings by air, I decided that this time I would return to Canada by sea. It would be delightful to spend six days on a new ship; to sleep in a comfortable cabin, enjoy the dallying study of a menu as long as a library catalogue, chat leisurely with relaxed and interesting people; sail up the St. Lawrence at a time when its banks would be ablaze with glorious autumn coloring!

So it was that on October 3rd I left London for Liverpool to sail on the Ivernia. I don't think that the fact that the boat train left from Platform 13 had anything to do with it. It was just my bad day. Stepping out of the carriage to buy a magazine at a newsstand three paces away, I was back in a minute to find that my camera had been pinched. The last person to wave me a sad farewell was a railway police detective.

* * *

IN LIVERPOOL, Ivernia was not alongside the usual stage. She hadn't been able to leave her dock basin because a gale was blowing and it was impossible to get her through the narrow tidal gate. Passengers got to her by bus; their baggage by lorry. Problem was that if the ship couldn't get away at high tide she'd have to wait for the next high tide. The fury of the wind increased. Ivernia stayed where she was. She stayed there all through the night, all through the next day and night, and the day and night after that.

Meanwhile, shipboard life proceeded as if Ivernia was reeling off her ocean knots. Passengers, wrapped in rugs, drowsed in deck chairs or walked round the glass-enclosed promenade deck, gazing across the narrow, sheltering quay at a turbulent Mersey. Hail and rain pelted down. The wind blew down the telephone cable to the ship.

For me the situation was rather perplexing. I had a commitment to address the Empire Club in Toronto on October 11th. When on the Friday morning the weather made it obvious that Ivernia would be imprisoned for yet another day, and that she couldn't possibly get me to Montreal in time, I repacked my bags, got off the ship and went back to London to spend an arduous day getting a flight. I got one for the Sunday night.

Out over the Atlantic the captain reported that he was encountering head winds of gale force. Hours later he informed us that weather conditions at Gander were such that he couldn't get in there. We landed at Moncton. Finally, 21 hours after leaving London Airport, we arrived over Dorval. Coming in for the landing, a light aircraft, the pilot of which looked blissfully unaware of our approach, got in the way. The big stratocruiser took evasive action, climbed again and circled for another landing. The captain's voice came over the loud speaker. "Sorry to have to take you round again, but we had to avoid a light aircraft." We touched down like a feather.

* * *

IT WAS WHILE I WAS STUCK in that Liverpool dock that my mind went back to my childhood. I had an uncle who was manager of a chemical company in St. Helens, which isn't very far from Liverpool, and as a small boy I went to spend a vacation with him. Trotting around with him I was introduced to a youth who was to become Sir Thomas Beecham, and to the then head of the Pilkington Glass company. Beecham and Pilkington are names to conjure with in St. Helens. That was more than 50 years ago.

Years later, before World War I, I got to know Pilkingtons in Victoria, B.C. And last week, at the Empire Club, the chairman was its president, D. H. Jupp, O.B.E., who heads Pilkington's in Toronto.

It's 130 years since the two sons of a doctor, Richard and William Pilkington, founded their first glass works in St. Helens. And a Pilkington heads the board today—Sir Harry. Still a family-owned concern, the company is established in Canada, Australia, New Zealand, South Africa, Brazil and Argentina and sells its products in 108 countries.

Stop Me If—

The bus was crowded when the young lady got on and a gentleman attempted to rise. She pushed him back gently and he tried to rise once more.

"No, no, thank you," she murmured, pushing him back again.

"Please let me get up, lady," he protested. "I'm two blocks past my stop now."

Post Scripts

Second Generation President

Members of the Canadian Woollen and Knit Goods Manufacturers Association have chosen as their new president George Herbert Dobbie, Galt, Ont., son of a founding member and past president of the association.

At 38, Dobbie is one of the youngest men ever to head this trade group, numerically the largest in the Canadian textile industry.

George Dobbie is president of three Galt textile firms: Newlands & Co., which makes worsted yarns, knitted fabrics and knitting yarns; Stauffer-Dobbie Ltd., manufacturers of towels, bed spreads, upholstery and other fabrics and Turnbull Ltd., which makes underwear, sports and sleeping wear. In addition he is one of the founders and president of Swift Airways Ltd., Galt, which hopes to operate charter airline services out of the Kitchener-Galt Waterloo area.

MR. DOBBIE

Born into and brought up in the textile industry, his father, the late G. H. Dobbie, was a prominent figure in the textile industry, and one of the founders of the Canadian Woollen and Knit Goods Manufacturers Association and served as its president in 1923-25.

George Dobbie received his early education at Lakefield Preparatory School and Ridley College and later attended McGill University where he studied commerce and finance. He spent many summer vacations working in his father's textile mills.

Early in World War II, he enlisted in the Canadian Army as a private and after four years of service, first with the Royal Canadian Army Service Corps and later with the Royal Canadian Ordnance Corps, was discharged with the rank of captain.

While not a pilot himself, Mr. Dobbie is an avid enthusiast and advocate of aviation.

He is a member of the Waterloo Golf & Country Club but manages to get in only the occasional game of golf. His chief hobbies are hunting and fishing.

Mrs. Dobbie is the former Marie L. Reiser. They have four boys. The eldest, aged 13, is already displaying an interest in the textile mills, his father proudly reports.

* * *

Chamber of Commerce Head

Raymond Dupuis, president and managing director of Dupuis Frères, Ltée., has been described as the distinguished bearer of a distinguished Montreal family name. This week he was named president of the Canadian Chamber of Commerce. At 49, Dupuis brings to his new office legal training, executive leadership, knowledge gained through widely traveling in Canada and abroad, a love of tradition and a keen understanding of the French and English problems.

Born in Montreal, Aug. 2, 1907, he is the son of the late Albert Dupuis, former president of Dupuis Frères, and Henriette Beullac Dupuis, both of Montreal. He was educated at Mont-Saint-Louis College where he graduated in a science course and the Université de Montréal.

He read law with Godin, Dussault & Cadotte and was called to the bar of the Province of Quebec in 1930. For seven years he was engaged in general practice. It was in this period too that he developed an active and continuing interest in business groups. At the age of 23, he became secretary of the Montreal East End Business Men's Association and continued his work with it for 12 years.

In 1933, he was elected director of Dupuis Frères and in 1937 he joined the firm as assistant secretary-treasurer. He became secretary in 1942, vice-president in 1944 and was elected to succeed his father upon the latter's death in 1945. Dupuis is a grandnephew of J.-Nazaire Dupuis who founded the firm in 1868.

In 1949, Dupuis acquired majority interest of the department store and mail order house. He is a director of the Royal Bank, Shawinigan Water & Power, and several other industrial and insurance companies. He is also active in business organizations like the Montreal Board of Trade, and the Dollar Sterling Trade Advisory Council.

He is an honorary president of Les Disciples de Massenet and a governor of La Société des Concerts Symphoniques de Montréal and Notre Dame and St. Justine Hospitals. He is past president and member of the executive committee of the Federation of Catholic Charities and a director of the Canadian Welfare Council and the Province of Quebec Society for Crippled Children.

Married to the former Hélène Saint-Pierre in 1937, they have one son, Albert, and two daughters, claire and Nicole. For recreation, he enjoys yachting.

As a past president of La Chambre de Commerce de Montréal and past first national vice-president of the C of C, Dupuis understands intimately business groups and he says:

"I think our main task is to create a climate of confidence in our business leaders. The public at large must realize that these business leaders are discharging their responsibilities in a remarkable way and are also devoting a lot of their time to worthy causes and doing all that can be conducive to respect for law and order."

* * *

Power Engineers' Choice

The Institute of Power Engineers' which got its federal charter in 1940 and this year held its annual meeting in Winnipeg, re-elected Charles E. Baker, London, Ontario, as 1957 president.

Its attempts to project the nation's power picture ten or twenty years into the future showed that increased demand for power is common in all provinces. There are differences about how and where to develop it. The Winnipeg meeting indicated that in the prairie provinces one of the problems relates to integration of steam power with hydro on their fast growing systems. This is particularly the case in Manitoba where by 1960 the installed steam power capacity will be six times what it is now.

The Institute of Power Engineers is concerned with all provinces. Mr. Baker who currently is power plant superintendent at Westminster Hospital, London, and also supervisor of power plants for the Department of Veterans Affairs across Canada, next year will be serving his seventh term as president.

His training and experience as a power engineer have been mainly practical and not a great deal academic. Born in Maidstone, Kent, England, he came to Canada in 1911 when he was eighteen. One of his first jobs was with a power plant in Detroit. Soon after he went to London which became his permanent location, and again in employment at power plants.

On the outbreak of the First World War he enlisted with the Engineering Corps, went overseas in 1915 and served with the armed forces until he became a casualty. He lost an eye in 1918. On his discharge he returned to London and resumed work in power plants.

Supplementing his practical work with correspondence courses in power engineering and a brief term at the Sietel Institute of Technology in Chicago, he joined the department of Veterans Affairs in 1928, starting in a junior position in its power plant in London. He became chief engineer in 1937 and was appointed supervisor for all its plants in 1955.

His family of three sons are all engaged in power work.

What Others Are Saying

Editorial of the Week

The Answer is More Teachers

Montreal Gazette

The engineer shortage is so great in the United States that recruiting staffs at college graduations sometimes outnumber the graduates. Canadian and American industries have recruiting teams in each other's countries and roving Western Europe.

Where are the engineers to come from? The causes of the shortage go deep into the educational organization of North America.

In some areas of Canada and the United States, teacher shortages have caused the high school courses in mathematics, physics, chemistry to be dropped. The encouragement of future engineering students disappears in such areas. This is where the problem begins, in the high school.

The key to the whole matter seems to be the status of the teacher, economically and socially, in the community. If teaching were made more attractive, a great part of this and associated problems might be solved.

Other People's Views

ALMOST WITHOUT EXCEPTION in the provincial elections this year, points out the **Regina Leader-Post,** "the sitting governments have not only won resounding victories, but the oppositions have been weakened. This is not a healthy trend."

A GOOD EXAMPLE to outsiders has been set by A. V. Roe of Canada in offering stock for sale in this country, says the **Halifax Chronicle-Herald.** "We hope that this will be followed by other outside firms operating branch companies in this country, including some established in Nova Scotia."

NOVA SCOTIANS ARE PROUD of being a part of Canada, asserts the **Halifax Mail-Star.** "There was a time when there existed a strong provincialistic element which harked back to the so-called good old days, seriously advocated secession and, perhaps, resented the progress experienced in other parts of Canada. Today, however, those feelings have died out and Nova Scotians are glad of it. We are Canadians first and Nova Scotians second and may it always be thus."

ATOMIC POWER PLANTS are opening a new and huge market for Canadian uranium, points out the **Windsor Star.** "Canada's uranium industry until recently has been, to the bystander, pretty much a gadfly of speculation and promotion. That its output was more a high explosive than fuel tended to confuse the picture. But that is changing. Uranium is beginning to take its place in the Canadian balance of trade picture."

FOR NO GOOD REASON vast areas of Canada are starving for people and industries, declares the **Owen Sound Sun-Times.** "A time is coming when the concept of planning will have to be extended on a national basis as a guarantee that Canada's prosperity and growth are not sectional. One does not have to be a Socialist to agree that this nation's wealth should be distributed if the whole is to be economically healthy."

BEFORE WE GET too wrought up about American wheat export deals let's look at some of our own, suggests the **Montreal Star.** "For that matter, Canada, too has been making deals. It has sold butter to Europe at less than the domestic price, something which is often referred to as dumping. It has also made wheat deals with various countries behind the Iron Curtain. The prices, so far as we know, have never been revealed. Before we get too hot under the collar, let's make sure that we have been keeping all the rules."

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October 20, 1956

Eisenhower versus Stevenson

This is a Contest of Personalities, a Clash of Doctrines

By J. B. McGEACHY

It always astonishes our American friends to discover that in Canada or Britain an election campaign can begin and end within a month and that a defeated prime minister can tidy up loose ends and clear out of his office in 48 hours or less. The presidential battle has been going on since last spring and, if Mr. Eisenhower should lose, he will stay in power for nearly eleven weeks before Mr. Stevenson puts on his silk hat (or homburg if he follows the unprecedented Eisenhower example) for the ceremonial drive to the White House. In the homeland of hustle the political machine moves with the speed of an ox-cart.

This second round in the Eisenhower-Stevenson contest has been a long affair; but nobody can complain it's been dull. It has given the world a close look at two very uncommon Americans; and it has provoked a stirring clash between the two political philosophies that compete for the mind of Western man. Communism, of course, isn't one of the two. The argument is between the market economy, as modified by the social changes of the past 20 years, and a degree of collectivism that would still give free enterprise a lot of room.

J. B. McGEACHY

"If Eisenhower should lose" is a phrase that could hardly have been written six months ago. Then he looked like as safe a bet as Louis St. Laurent did in 1953. The most remarkable feature of the campaign has been the rapid advance of Stevenson's chances. Pollsters are cagey about the result. The newspapers concede that the Democratic candidate is making a more effective run than in 1952 and may win if he carries three or four of the big and doubtful states.

The Lesson of 1948

This caution is no doubt a result of the lesson of 1948 when Harry Truman (unexpectedly, to everyone but himself) defeated Thomas Dewey. The polls had picked the New York Governor. So had the newspapers and, to their discredit, many of them had allowed this preference to color their reports. Truman had been shown, in dispatches and cartoons, making listless speeches to empty halls. It was not until the votes were counted that the truth leaked to the outside world. The game battler from Missouri had in fact captivated large audiences with his humor and "give 'em hell" style. Chastened by 1948, the U. S. press is doing Stevenson justice.

The very idea that lovable, heart-warming "Ike" could be a one-term President is still almost shocking to many people outside and inside the U. S.; but it's worth remembering that the last Republican President, Herbert Hoover, had only one term. Hoover, you may say, was never the popular idol that Eisenhower is. That's true enough. Hoover lacked Ike's smile and genial humanity; but in 1928 he had enormous prestige as "the great engineer," the man who knew all the answers to the problems of an expanding economy.

Hoover has regained his place in the affections of Americans, partly by living past 80 and partly by persuading many Americans that by the spring of 1933, when FDR came to power, he had the depression licked. But in 1932 (as I well remember, having reported that campaign) Hoover was about as popular as the flu. "If you don't buy your gas from me, I'll vote for Hoover" was the sign to be seen at many filling stations. H. L. Mencken offered the opinion that any Chinese laundryman could beat the luckless Herbert. Mencken, of course, was an a-political man. He was interesting on women, theology, music, literature, prohibition, and the American language; his political views were generally about as valuable as would be Rocky Marciano's views on Beethoven (unless the boxer happens to be a musical amateur). But what Mencken said about Hoover's prospects was, in exaggerated form, the common American estimate.

The example of Hoover (another example is Lindbergh) shows that an American hero can topple. Eisenhower hasn't toppled but Stevenson, legitimately and successfully as it seems, has worked hard to get the President off the pedestal and down to grass-roots level. Tactically, the Democratic candidate scored a victory when he forced his opponent to get into the heat and dust of the arena and defend his party's record; the point being that Stevenson could never win a popularity contest with Eisenhower but the Democrats might win one with the Republicans.

The "New Stevenson"

It was "the new Stevenson" that forced the change in the President's campaign plans; and the newness of the 1956 Stevenson has been one of the striking aspects of this fight. In 1952, as attested by those who knew him best, the Illinois man was not really anxious to be President. He was at least half-convinced that a change to the Republicans and four years of Eisenhower in the White House would be a good thing for the country. He campaigned as if that was how he felt. His speeches were an intellectual treat; but there wasn't much kick in them.

This time he has fought as if eager to win the prize and as if convinced that if the first Eisenhower term hasn't been a disaster the second would be. He has been explicit in his promises, pugilistic in his style, bold in his attacks on the President, as "folksy" as he can be with the handicap of a fastidious mind. He even went to the length of pronouncing elite as "e-light" in a passage intended to show that he wasn't himself a member of the American aristocracy of brains, and comfortable living, which he indubitably is. Mockery of the "e-light" didn't please Stevenson's intellectual friends; but who are they among so many?

> **"The very idea that lovable, heart-warming 'Ike' could be a one-term President is still almost shocking to many people outside and inside the U. S.; but it's worth remembering that the last Republican President, Herbert Hoover, had only one term."**

There is another and less frivolous answer to complaints about the new Stevenson. He has competed actively for votes. He has made promises, like any other politician. He has condescended to deliver 10-minute capsule speeches though he agrees with Woodrow Wilson that such speeches are usually a compound fracture of the truth. And some of the newspapers and political orators have held up their hands in mock horror and said: "What a falling-off is here! What a shame that so brilliant a man should let himself down in this way and jump into the party fracas with the rest of the rabble-rousers." The point is that the people who say this in 1956 are the very same people who said in 1952: "Of course you can't possibly vote for Stevenson. He's far too highbrow, too remote from the ordinary man, too much of a word-spinner, too impractical, to make a good President." What really troubles these critics today is that Stevenson seems likely to pick up a few votes he missed four years ago.

Attacks on the President

The Democratic leader has attacked the President on three personal grounds. The first is his age; Eisenhower would be 70 before the end of his second term and no man, since the foundation of the republic, has held the presidency at that age. The second is his less than perfect health; the apparent robustness of the President has damped down references to this question but it may be lurking in the back of many American minds. The third and hardest punch is Stevenson's contention that Eisenhower, even if he were 50 instead of 66 and regardless of his health, hasn't the temperament and the qualities that make a dynamic President.

Woodrow Wilson's view was that every President has the right to be as great a man, and as powerful, as his natural gifts make him. The classic story illustrating the President's authority is about Abraham Lincoln's disagreement with his Cabinet over a civil war decision he had taken. He polled the Cabinet and announced the result: "Noes, seven; ayes, one. The ayes have it." The constitution says that executive power in the U. S. "shall be vested in a President." It says nothing about the Cabinet; and in fact the members of that body, appointed by the President and responsible solely to him, have no power whatever except such power as he may be pleased to allow them to exercise.

It's obvious that Eisenhower hasn't worked on Lincoln's rule. The most striking evidence of the free hand he has given his official family is the well-known fact that John Foster Dulles has moved around the world with the foreign policy of the U. S. under his hat. The Stevenson argument is that, in home as well as international affairs, Eisenhower has failed to give leadership.

This kind of failure isn't necessarily a bar to re-election. In another period of prosperity comparable to the present, the mid-20s, the President of the U. S. was Calvin Coolidge. (I used to think that this prim and puritanical man, ruling in the licentious jazz age of bathtub gin, flappers, Scott Fitzgerald and Al Capone, was a symbol to the Americans of their essential adherence to the straight and narrow.) Coolidge was a more or less inactive President who breakfasted on pancakes, syrup, eggs and bacon and was said to enjoy the soporific effect. When Alice Roosevelt heard the news of his death in 1933, she asked: "How can they tell?" Yet Coolidge had been triumphantly elected for a second term in 1924.

The Democrats argue that this is no time to let the American economy look after itself, no time for complacency about material achievements. They have to admit that the U. S. is a very rich country; but they point out that American farmers are not doing so well as they used to, eight million American families live on less than $2,000 a year, some American workers are unemployed and the country needs a lot more houses, schools and hospitals. The implication, of course, is that a Democratic administration wouldn't allow a voluntary economy to try to remedy these flaws by its own unaided effort. There would be social action, there would be government measures, to promote equality.

A Contest of Doctrines

Herein lies the contest of economic doctrines the Americans are asked to judge. Stevenson is offering them, though he doesn't stress this word, more control. Eisenhower and the Republicans offer present freedoms, proudly claiming that their policies have made the nation richer than ever while at the same time they have balanced the budget (Truman had a permanent deficit, due to a multitude of causes including the Marshall Plan and the Korean war), cut the national debt and lowered taxes.

Perhaps only a minority of Americans will think in philosophical terms about the economic issue; but all of them will think about economics. The election may hinge on the question: How discontented are the farmers and how much faith do they put in Democratic promises of higher prices? It was a swing in the farm states that gave Truman victory in 1948.

"Towards Equality" is the Socialist slogan in Britain; and it could be on Stevenson's banner with equal appropriateness. But he is talking about equality of income. The race question has not been prominent in the campaign; and this is surely creditable to American democracy. It would be an unhappy thing if one party appeared as the champion, and the other as the opponent, of the Negro's right to attend schools on equal terms with white children. Both parties, more or less explicitly, are committed to the sensible view that the Supreme Court's decision against segregation will be fulfilled, when it is, with the consent and not against the will of the local communities concerned.

Stevenson, because of the flecks of cloud on the clear sky of American prosperity, may possibly have the edge in the argument about home policy. Eisenhower probably has the edge in the foreign affairs debate. It is a common error to exaggerate the interest Americans take in world questions when they elect a President; but this time they are evidently thinking hard about peace and how to maintain it.

There are many reasons why, since January, 1953, when Eisenhower came to power, the East-West tension has lessened and the danger of war has receded. The death of Stalin and the subsequent switch in the Russian line are factors as important as any. The Marshall Plan, NATO and American rearmament, all to be credited to the Truman administration, are equally significant elements in the story. The important point, electorally, is that Eisenhower did end the Korean war, stayed out of the Indo-China war and is steering clear of trouble in the Middle East. Eisenhower is President at a moment of time when the world has enjoyed peace or something like it for a year or two and when war looks unlikely. He will get credit for this as the man of experience (by contrast with Stevenson, the untried man) in international affairs.

The "War Party"?

It will also tell in Eisenhower's favor that the last three Democratic Presidents all led the country into war. This may be an accident of history. It has been argued inconclusively that FDR sought war with Japan. It has not been argued that Wilson provoked the Germans to sink the Lusitania or that Truman provoked the North Koreans to attack. Nor has it been argued that the Republicans, if in power in 1941, would have confined themselves to verbal protests at the time of Pearl Harbor. In other words, there is no clear case whatever that the Democrats are a war party. Nevertheless, the historical record has an influence; and there are millions of Americans who think that peace will be safer in the hands of President Eisenhower and the Republicans than in any other hands.

Eisenhower, of course, is the man in office and the man to beat; but anyone who wants to guess the election result should bear in mind that the Democrats have been the normal majority of the American nation since 1932. Franklin Roosevelt transformed his party. Before his day it was a loose and most strangely assorted alliance, operating only once every four years, between southern die-hards, Tammany Hall and other local organizations in northern big cities, immigrants and intellectuals. Roosevelt, a political genius of the first magnitude, drew into the Democratic fold the trade unions (now backing Stevenson), the farmers and, most remarkable of all, the Negroes. Traditionally, no Negro had voted, if he voted at all, for any party but the Republican party of Abraham Lincoln who emancipated the slaves. The Negro switch to the Democrats was as astonishing as would be the support of Roman Catholic candidates by Toronto's Orangemen.

Eisenhower beat this Roosevelt combination; but he did so as an individual and not as a party chief. He was still General Eisenhower to most people in 1952; his personality and his impeccable record as leader of the Western military forces, in war and peace, carried him to the White House without the necessity of arguing about issues at all. He never succeeded in winning, for his party in Congressional contests, the victory he won for himself; and he has not remade the Republicans in his own image as Roosevelt remade the Democrats. Therefore a question for prognosticators to ask themselves is whether the President is still the shining hero he was four years ago.

An immense amount of arithmetic, as everyone knows, is involved in calculating presidential election chances. Eisenhower's vote in 1952 was 33,936,252 against Stevenson's 27,314,992. It looks, then, as if Stevenson needs to swing about 3.5 million (or, say, 4 million allowing for the gain in population) to win. But less than one million switched votes, if properly distributed, would give him New York, Illinois, and California; all of which states he lost in 1952. A mere 150,000 would give him Pennsylvania. The arithmetic is too complex; better leave it to the voters. Three weeks hence they will have decided.

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Short, Sharp Cement War As Expansion Continues

(Continued from page 1)

vinced them that, if they could weather the immediate short-term storm, there would be room for everybody in a couple of years or very soon after.

Meanwhile, hundreds of cement users in the ready-mix and concrete products industry as well as construction men, are watching the situation keenly.

Will it mean a price war in cement? The chances are even on that score but a lot of users are hesitant to enter into commitments just now in case prices do come down.

The cement manufacturers don't agree. They have been strengthening their sales forces, overhauling their markets, some are offering inducements to new customers by way of credit terms.

Here is the picture:

In 1955, Canadian producers shipped 25,168,464 bbls. of Portland cement. By July this year, shipments were up more than 18%. Production at the end of July was up nearly 20% over the same period in 1955.

Total output of cement plants in 1955 was 25.1 million bbls. Earlier this year, Canada Cement brought extra capacity representing 1.5 million bbls. a year into operation at its Montreal East plant.

Last week, the same company went into full 1.5-million-bbls.-a-year operation at its new Woodstock, Ont. plant and, by the beginning of November, **St. Lawrence Cement Co.** expects to be in full 1.5-million-bbls.-a-year production at its new Clarkson, Ont. plant. In both cases, production is expected to have been doubled by early next year.

By the end of this year, **St. Mary's Cement Co.**, St. Mary's, Ont., schedules operation of an extra one-million-bbls.-a-year capacity, bringing its total capacity for Pyramid brand to three million bbls. a year.

In Edmonton, **Inland Cement Co.** started operations this year, is now producing at the rate of about one million bbls. a year. Plant capacity is being doubled and will reach production stage by the end of November.

In Regina, **Saskatchewan Cement Corp.** .85 million-bbls.-a-year plant is now in operation.

Other cement plans for the future include:

A new 1.3-million-bbls.-a-year plant building near Vancouver by **Lafarge Cement Co. North America Ltd.**, subsidiary of French-based **Lafarge Group**, and scheduled for production early 1958. **B. C. Cement Co.**, in which **Associated Portland Cement Co.**, U.K., has an interest, also has expansion plans in hand.

In Ontario, **Lake Ontario Portland Cement Co.** is building a 1.8-million-bbls.-a-year plant at Picton with production date scheduled for next year.

And in the Maritimes, Canada Cement has announced plans to add 800,000-bbls.-a-year capacity to the Havelock, N.B. plant of **Maritime Cement Co.**, its subsidiary.

Associated Portland Cement Co. has postponed its plan to build a cement plant in Ontario. The company made the decision after extensive market studies in the province, but still maintains options on limestone deposits in the Cobourg and Ingersoll areas.

Can. Cement Raises Funds For Expansion

MONTREAL (Staff)—An offering of $15 million 5¼% 20-year sinking fund bonds of **Canada Cement Co.**, is being made by a syndicate headed by **Wood, Gundy & Co.** Price is 100 and accrued interest.

Canada Cement this week announced it would further enlarge, by 1.5 million bbls per year, the capacity of its Woodstock, Ont. cement plant. The plant, the company's newest, went into production only three weeks ago and has at present a capacity of 1.6 million bbls per year.

The new addition is in the form of a second kiln and is expected to be operating by the spring of 1957. Improvements are also being made to the clinker grinding department at company's Montreal East plant.

Proceeds of the issue will be added to general corporate funds and will be used in repayment of bank indebtedness resulting from payments for construction of capital additions to company's properties between June 30 and Nov. 1 of this year. As at Nov. 1, bank indebtedness will be an estimated $10 million. Part of the proceeds will also be used for completing the addition to the Woodstock plant, estimated at $5.5 million, and defraying expenses of improvements to the Montreal East plant, estimated at $3.5 million.

The debentures being offered are redeemable in whole prior to maturity at prices ranging from par plus a premium of 5¼% if redeemed before Nov. 1, 1957, the premium thereafter decreasing by one-quarter of 1% annually, to the fixed date of redemption.

Company will establish a sinking fund of $375,000 per annum commencing Nov. 1, 1959 to Nov. 1, 1962 and of $750,000 per year thereafter to maturity.

During the current fiscal year, company's plants operated at capacity and the demand for cement absorbed the full output. Outlook for the balance of the year is promising due to continued activity in power development work, industrial expansion, coupled with a substantial house building and highway construction program, company states.

Net profit in the first seven months of the current fiscal year was $4,367,425. This compares with net profits of $7,591,887 in the full year 1955 (as against $6,350,147 in 1954).

After giving effect to the current offering, capitalization will comprise: 4% serial bonds due '56-'61, $3 million; 3¾% debentures, $20 million; 5¼% sinking fund debentures due '76, $15 million; $1.30 preferred shares ($20 par), $24,086,900 authorized and $15,000,000 outstanding; 3 million common shares (n.p.v.) of which 2,400,000 shares are outstanding.

Interest charges on the bonds outstanding, excluding the current issue, now amount to $870,000 per year. Maximum interest requirements on the issue being offered $787,500 per year.

For Wheat: New Protests To the U.S., Good Sales

OTTAWA (Staff) — Washington's rejection of the Canadian protest about tied sales of wheat to Brazil was expected here. It will not end Canada's efforts to persuade the U.S. to abandon this newly discovered feature of its surplus disposal program.

The official Canadian protest was directed specifically to a U.S. proposal asking Brazil to guarantee to buy 200,000 metric tons of U.S. wheat in each of the next three years. This was suggested as a condition of the U.S. supplying to Brazil 1.8 million tons of wheat for local currency.

But Canadian indignation went far beyond the Brazilian deal. It was aroused by the belated discovery in late August this year that the U.S. has been attaching these tied sales as conditions of its local-currency surplus deals ever since the program started two years ago.

The U.S. reply to Canada's protest repeats the explanation given in The Post story (Oct. 6) which first revealed this whole situation. It is that tied sales of stated quantities of U.S. wheat are required by the congressional act (PL480) which authorizes the local-currency disposal program.

To most people outside the U.S., the Act of Congress does not appear to bear this interpretation; certainly it appears equally capable of being interpreted in a way which would involve much less interference with the normal marketings of other countries.

Complain to GATT

Canada has immediately available an international forum where the U.S. practice might be challenged. It is the annual session of the GATT contracting parties at Geneva, which started last week.

But the Government reached no decision about whether to take this opportunity before Mr. Howe left last week end for Japan (via the U.S.). He took with him his principal wheat expert, the associate deputy minister of trade and commerce, M. W. Sharp.

Whether Canada takes the initiative in this international group or not, the matter will certainly be pursued in further discussions with the U.S.

The regular meetings of Canadian and U.S. officials on the surplus disposal program will provide one chance. These have been going on for the last 12 months, were intended to provide a complete exchange of information about U.S. giveaways and their conditions.

Why Canadians Leave Home? More Money Is One Answer

(Special Correspondence)

WASHINGTON, D.C. — More Canadians are pulling up stakes and moving to the U.S. than ever before.

Latest figures available in Washington show something like 80 Canadians quit their home towns every day and move permanently across the border.

In the fiscal year ending June 30, about 29,500 Canadians came to the U.S. to live. While 80 Canadians moved to the U.S. every day during the last fiscal year, the average was 65 in the previous year.

Back just after the war, only about 18,000 Canadians per year moved across the border. Before the war, the figure was a mere 7,000. So, while the Canadian population has increased about 50% since just before the war, the exodus of Canadians to U.S. has increased by more than 400%.

The reason for moving in most cases: money.

Start Canada-Side Channel, Say 'Not Duplicate Seaway'

By MICHAEL BARKWAY

OTTAWA (Staff) — A tender call by the St. Lawrence Seaway Authority this week shows that Canada is making a start on the 27-ft. channel north of Cornwall Island which has been in dispute with the U.S. Government.

It does not mean, The Financial Post learned, that agreement has been reached between Ottawa and Washington for completion of the 27-ft. channel right through to Cornwall, though agreement is still hoped for.

Tenders have been called for dredging a channel from the entrance of Lake St. Francis upstream to a point about 1,000 ft. from Lock 15 on the old 14-ft. canal.

This is only the eastern end of the channel which would be needed to give 27-ft. access to Cornwall; but it clearly points to the Cornwall Lock.

If it was extended in a straight line it would connect with the Barnhart Dyke at the point where provision has already been made for a 27-ft. lock.

Government officials are at pains to repeat—as they have constantly done—that Canada has no present plans for building a through Seaway on the Canadian side to duplicate the U.S. canal and locks at Barnhart.

But they admit that the new dredging for which tenders have been called follows the course which an all-Canadian Seaway would take, if it is ever decided to build one in the future.

In this respect the new work merely follows the pattern which was set by Canadian Seaway Authority, on an allocation of dredging and other work in this section of the river.

Both the work and the costs under the scheme would be divided evenly. Each side would have to pay about $17 million, of which it would get about $6 million from the power authorities.

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after which date all stock purchase warrants will be void. The trust indenture providing for the issue of such stock purchase warrants will contain provisions for adjustment in the number of shares issuable pursuant to the privileges attaching to such warrants in certain events, including any consolidation, subdivision or reclassification of, or any stock dividend being paid on, the Shares of the Company.

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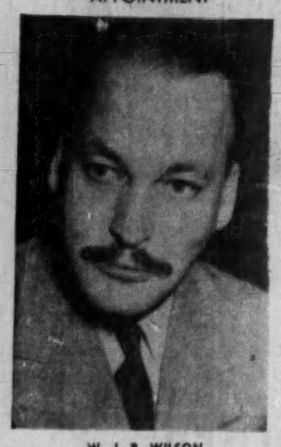

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56-26

Nation Readies Big Push For More Winter Work

(Continued from page 1)

ing the winter before next spring brings another wave of demand.

In spite of all this, however, they think we shall be very lucky if the number of unemployed in February or March isn't double today's figures. It is quite likely to match February, 1956, when the Labor Force Survey showed more than 300,000 people without jobs and seeking work and the National Employment Service reported more than half-a-million unplaced applicants.

Since the war unemployment has grown, on an average, at least two-and-a-half times from the autumn low to the winter high.

We may be able to better this in the season between such a year as 1956 has been and such a year as 1957 promises to be. But businessmen and government officials who have studied the matter say that winter unemployment cannot be licked without a major change in public habits. That is the aim of the renewed publicity campaigns now being planned.

Retailers, distributors, utilities, civic authorities, labor unions, newspapers and radio stations are already getting to work in 150-200 communities planning the 1957 campaign.

Before spring they will have spent hundreds of thousands of dollars on the Do-it-Now theme. If last year is any guide they will have been rewarded by keeping thousands of Canadians at work who might otherwise have been on unemployment assistance.

In most communities businessmen have largely taken over the campaigns from the Federal Labor Department and the NES offices which launched the idea a couple of years ago.

They have found it good business to stimulate employment, and therefore spending power, in what used to be considered "the slack season." They have come to regard the winter slackness as being not so much a law of nature as an out-of-date habit of mind.

Good Results

The results of last year's campaign have strengthened this idea. It is significant that the places which ran the most active campaigns last year are also the leaders in organizing this year's effort.

A tally of last winter's advertising (January - March) on the Do-it-Now theme shows large use of local newspapers and radio stations by business concerns supporting local employment committees in 170 communities. Space donated or bought by business concerns and municipalities included:

Newspapers: 177 full-page ads, 78 ¾ pages, 200 ½ pages. Uncounted smaller ads.

Radio: 2,805 spot announcements, 5,527 minutes program time.

Compared with this business contribution, the Federal Government's contribution is relatively small. Last year it spent rather less than $30,000 on publicity for the campaign. In the coming season it plans to spend about $45,000. In addition it it committing about $25,000 to a filmstrip on the winter employment theme.

Participation by national advertisers in support of local efforts may boost this year's total far beyond last year's effort.

Leading cities in this campaign have been Halifax, Quebec, London, Port Arthur, Calgary, Victoria. Notably inactive have been major centres: Montreal, Toronto, Vancouver, Ottawa.

Counting only the seven active centres listed, evidence has been collected of about 6,400 people who got jobs last winter as a direct result of the local campaigns. This includes about 2,400 normally laid off in the winter.

By the nature of the case statistical evidence cannot be complete. There is no way of knowing all the jobs that may have been found as a result of the campaign, nor how many of them would have existed anyway. But hundreds of reports collected in the Department of Labor convey a convincing picture of businesses, individuals and civic authorities all being stimulated to find ways of providing winter employment.

Need Careful Planning

After reading them it is difficult not to believe that more careful planning can greatly reduce the seasonal swings in employment. They fall into three broad classes:

1. Reorganization of industrial operations. Here are some characteristic reports:

—"Local factory rearranged production schedules to keep staff employed."

—"Industries undertook interior maintenance usually done in the summer."

—"Processing of new product undertaken, employing 51 workers normally engaged only in summer work."

—"Manufacturing plant reorganized work to provide continuous operation for 11 men and seasonal for eight, instead of seasonal for 15."

—"Employer discontinued overtime for regular staff and employed 14 casuals."

2. Winter repairs and decorations. Characteristic cases:

—"One small garage provided a work project employing three carpenters and two laborers."

—"After first week of campaign a local painter had enough orders to keep two men busy. Three days later he had enough work for eight weeks and hired two more men."

—"X renovated his business premises. Y rebuilt his premises. Z renovated the top floor of his hotel."

—"Eleven private individuals in this place called the newspaper to say they had had painting and repairs done as a result of the campaign."

—"Merchants here say they have sold more materials than at any other time."

—"Lumber, paint and hardware establishments report increased sales after campaign."

3. Winter Building: Reports from right across the country tell of builders who have responded to the Canadian Construction Association's campaign showing that winter building, with proper precautions, need not be unduly costly, and that in many cases it may lead to savings.

Municipalities, power authorities, institutions like the Canadian Legion, service clubs, businesses and individuals are all reported as having ordered winter building with good results.

Imperial Bank Wins Ad Award

For consistent excellence in newspaper advertising over the past year, **Imperial Bank of Canada** has earned one of the 20 Socrates Honorable Awards presented to banks in Canada and the U. S. This is the third time Imperial has won this award since 1951.

Presented by **Vincent Edwards & Co.**, New York business publishers, the awards are made by a committee of bankers which examines the advertising of some 6,000 banks on this continent.

Imperial Bank's award-winning advertising was built around a clock theme which used the words "Now is the time to save."

Will Tight Money Medicine Cure Our Growing Pains?

(Continued from page 1)

anticipate what the U. S. may do in regard to monetary stringency or cheapness. What about the long term?

Taylor said Canada couldn't for long follow a monetary policy diametrically opposed to the U. S. but Canada can and has followed policies that differed from those in the U. S. to a considerable extent.

Ashforth noted that there is some justification for the view that policies were first concerned with maintenance of full employment, and stable price level was a secondary consideration.

"At times the objectives of full employment and a stable price level are not entirely compatible," he said. "The major instrument available to the governments to meet full employment are inflationary in character."

Taylor didn't share this view unless "full employment" meant a continuous and progressive inflation. "We shall, in my opinion, always have fluctuations in business activity . . . I think that is inherent in any dynamic, expanding and free society."

One of the areas tighter money is hitting hardest is in the field of housing construction.

Said Belanger: Banks are restricting loans for residential construction but is this sufficient? Is it not a drain upon resources which utilized in other sectors would promote a saner expansion of the economy? Could not a substantial reduction in construction of houses be an excellent means of decreasing the inflationary thrust?

Are there serious disruptive effects in the money market as a result of frequent changes in the Bank of Canada discount rate?

Ashforth's speech indicated change in the discount rate does not have any very direct influence on the market since the banks as a rule do not borrow from the Bank of Canada. Changes in the discount rate in the past year have followed the rising interest rate of money.

"Nevertheless, the impact of a change in the monetary policy as a whole, in which a change in the discount rate may be involved in conjunction with other measures, certainly can have a disruptive effect in money and capital markets," he said. "To some extent it must have such effects to accomplish its purposes."

How about fiscal policy? Is it effective as an economic stabilizer?

Belanger made these points:

—It is generally admitted we shouldn't count too much on the anticyclical variations of public works to correct inflation.

—Like business concerns, governments tend to drift with economic currents rather than stem them. Even in inflation, government expenditures increase because of the more abundant taxes and greater borrowing facilities.

—Manipulation of taxes can do more than public works despite limitations. The tax yield is an anticyclical measure—up in prosperity, dipping in slow downs. The finance minister's 1955 budget was founded on this element of automatic stabilization.

"The question is whether this new built-in stabilizer will be elastic enough to function with success in time of market inflationary pressures," Belanger said. "A more bitter pill may prove necessary . . ."

Taylor said: The objective has been to match the rate of increase in volume of credit reasonably with the physical capacity to expand.

"The difficulty about applying the brakes when traveling at high speed is that the apple cart or other vehicle may be upset," said Forsyth.

"Is it possible that the need for industrial expansion could be met in part at least by that form of reduced taxation which permits more rapid write-offs as a hedge against inflation?" he asked.

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Hungary May Decide to Buy Some of Our Wheat Surplus

OTTAWA (Staff) — Canada is in the middle of negotiations for a trade agreement with another country of the Communist bloc.

This time, it is Hungary which has sent a team of negotiators to Ottawa to try for a trade agreement similar to the one signed early this year with Soviet Russia.

Private talks have been going on since early last week. It's said to be too early to prophesy their result, but there are good hopes that Canada may secure outlets for more exports, including wheat.

Pattern of any agreement with Hungary would have to be the same as for the agreement with Soviet Russia. Like Russia, Hungary wants to be given most-favored-nation tariff treatment by Canada.

But, as with Russia, mfn tariff treatment in Hungary wouldn't do Canada any good. The problem, therefore, is to find some acceptable undertaking by Hungary which would give Canada some return for extending mfn treatment.

In Russia's case, the price was the undertaking to buy not less than about 15 million bu. of wheat in each of the next three years. In Hungary's case, also, wheat looks like the obvious thing. Trade in other products is negligible.

The Board of Grain Commissioners reports clearing 1.1 million bu. of wheat for export to Hungary in the crop year which ended in July; but it hadn't shown up in DBS export figures up to the end of July.

Canadian exports to Hungary in the first seven months of this year were reported at only $23,000. In 1955 they came to $165,000, half of which was sweet clover seed. But much the most interesting exports were:

One pair of men's boots (or shoes): $15.

Two Electric washing machines: $278.

Hungary's sales to Canada are equally unimpressive and even less interesting. Last year they came $124,000, including some brooms, toys, cut glass, broom corn and — in reverse — some clover seed. Total for the first half of 1956: $80,000.

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Years of Experience from Coast to Coast

Credit Curb May Hit Car Buying

(Continued from page 1)

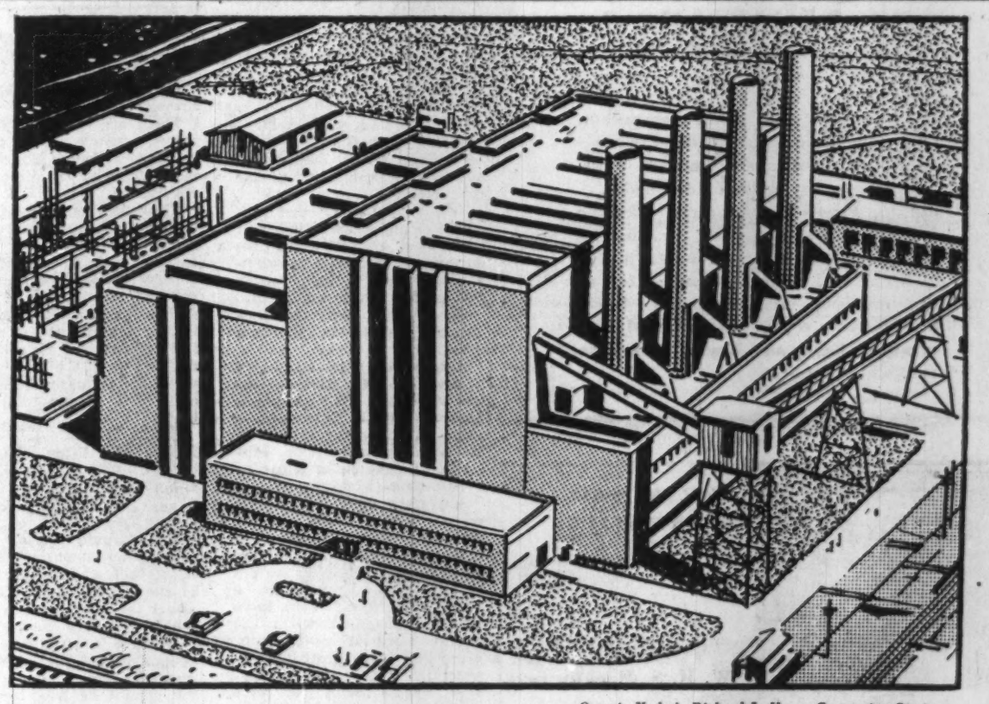
Canada and the finance companies—it's safe to believe that methods of voluntary restraint will be successfully worked out.

Those familiar with installment finance company operations say this won't be an easy task.

Keen competition has been the dominant characteristic of the business. If one or two companies gamble that nothing will happen if they drag behind on measures of "voluntary restraint," it could be hard on the business of the others who try curbs.

Finance companies have scheduled no formal meeting to work out a concerted program of restraint. It's understood, however, that early next week the companies committed to restraint will be in touch with each other about possible methods.

Out of this may come clear plans and an industry-wide move to tighten credit.



Ontario Hydro's Richard L. Hearn Generating Station

STEAM POWER STATIONS

The aggregate capacity of steam power stations designed and constructed by Stone & Webster is over 12,000,000 kw—more than 8,000,000 kw since the end of World War II.

Included in these installations is Ontario Hydro's Richard L. Hearn Generating Station in Toronto, which with 400,000 kw installed is the largest in Canada. Three additional units of 200,000 kw each have been authorized for this plant to bring its total capacity to 1,000,000 kw.

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PIPELINES

Through pipelines, the arteries of Canada, oil and gas are gathered, transmitted and distributed. The tremendous pipeline expansion now underway and projected for the future will require thousands of tons of pipe each year.

To help serve this large market a new industry has been established in the West: Prairie Pipe Manufacturing Co. Ltd.

The General Mortgage Bonds of the company provide investors with a return of 6% PLUS excellent opportunities for capital gain through the accompanying bonus of common shares.

We offer, as principals:

Prairie Pipe Manufacturing Co. Ltd.

6% General Mortgage Bonds, Series A (carrying a bonus at the rate of 150 fully paid no par value Common Shares per $1,000 Bond). Price: 99½ and accrued interest to yield over 6%.

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OSLER, HAMMOND & NANTON Limited

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Should ORAL ROBERTS be banned from Canada?

Doctors deplore this frantic faith healer's 'cures', but Roberts' weekly audience is the world's largest. Is his effect on these people dangerous and harmful? Should we ban him from Canadian TV and radio? Be sure to read Sidney Katz' story of today's most controversial preacher.

HOW SICK ARE CANADIANS?

Did you know that about one million Canadians have some form of permanent physical disability, and of these, half are severely or totally disabled? . . . that the average person feels under the weather 51.4 days a year? . . . that we pay out close to a billion dollars a year to keep well? These are only a few of the surprising facts revealed in David MacDonald's report on a brand new survey of Canadian's health. Be sure to read all the details.

"FOR THE SAKE OF ARGUMENT"

Major-General W. H. S. Macklin says

CANADA DOESN'T NEED MORE PEOPLE

How long can Canada support its ever-growing population? Are we exhausting our natural resources? In this frank, outspoken article Gen. Macklin says that if we continue to increase our population at the present rate we'll find ourselves in the unfortunate position of over-populated countries like India and China. His warnings are now in the October 27 issue.

National Advertisers Please Note: Just announced is a new circulation rate base of 565,000 for Maclean's, effective with the issue of March 2, 1957. This is an increase of 10.8% over the circulation rate base that came into effect last March and represents a growth in circulation of 33.4% over a period of five years. Advertising rates in March, 1957, will show a reduction in cost per thousand circulation.

MACLEAN'S

Canada's National Magazine • A Maclean-Hunter publication

INVESTMENT—IN PRINCIPLE AND PRACTICE

What's in a Price?

Large Price Changes Can Occur on Small Volume

By Pathfinder

Author of this special Post series on investing is one of Canada's prominent investment counselors. Daily he is dealing with a wide variety of investment problems and the principles used apply to both big and little sums of money.

A baffling question facing every investor is: "Am I getting value for the price I am paying?"

Like every article bought and sold, common stocks have a price which equates supply and demand. But also, like most other articles, there is a question as to the value received in relation to the price paid.

Most automobile buyers are interested primarily in value. Questions on performance, horsepower, durability and comfort are foremost in the buyer's mind. Normally supply and demand are less important in this market.

Real estate, on the other hand, is in many respects the opposite situation. Supply and demand is paramount and value is secondary. If a buyer is anxious, he will pay a high price just as a seller who must liquidate will probably get a low price. Yet in terms of value, both houses might be identical.

The common stock buyer is right in the middle of this conflict between price and value. Every moment of every working day there are new prices for common stocks. These come from the floor of the stock exchange where bids are matched with offerings. The prices at which transactions take place are immediately published on the ticker tape and at night thousands of prospective buyers or sellers can see in their newspaper the closing prices for their stocks.

This instantaneous and constant pricing of stocks is one of their most attractive features because it results in marketability which, in turn, means that profits can be turned into cash. Without some marketability, profits do not mean much.

But, on the other hand, the investor is faced with the problem of valuing common stocks, each of which represents a share in the ownership of a business. In comparison, estimating the value of a car or even a house is simple.

Not only does a company possess assets which usually include land, buildings and machinery, but its most important function is to earn a profit. This depends on a group of workers, a sales force and a management whom the average investor never meets. Moreover their profit-making potential is governed by outside events such as price slumps, government actions and even natural disasters.

Aids to Investor

Yet with all these difficulties there are several aids to investors which are not available to a car buyer.

For instance, there is the balance sheet and income statement, signed by a reputable independent auditor, which gives a value to the assets which usually can be counted on to be very conservative. The earnings statement gives an indication of the company's operating efficiency.

And as for world-wide events and the efficiency of management in meeting such challenges, the average investor can often be as good a judge as anyone.

In addition there are certain tools such as yield, and price to earnings ratio, which help the investor establish a value for a common stock. One does not need to be a mechanic to buy a car, nor does one need to be a full-time investment analyst to buy good value in common stocks.

If most investors do determine a value for stocks, why is it that prices fluctuate so widely? The answer is that, in the short term, supply and demand set the market level.

What many average investors do not recognize is the fact that it is the last share sold which sets the market level for the whole.

Suppose, for example, the stock exchange switched over for one day to quoting the prices at which loaves of bread traded. All day the price would remain level—at 20 cents per loaf—as the vast majority of housewives did their shopping. However, just before the close of business a few housewives rushed out to buy bread only to find that there were not enough loaves to go around. One would immediately offer 25 cents a loaf, another 50 cents and the last transaction might take place at $1. Imagine the delight of the housewives watching the ticker tape when they see their loaves previously bough at 20 cents now worth $1! But of course their profit would be illusory.

In the short term common stocks are much the same. In nine days recently **Consumers' Gas** went from $24 to $28 increasing its listed value (the number of shares in the hands of the public times the price per share) by $5.8 million. Yet only 18,400 shares traded hands —about 1.3% of the shares outstanding.

Similarly in four days **Gypsum Lime & Alabastine** common dropped from $36 to $33, decreasing its listed value by $2.6 million or almost 10%. Yet there were only 1,940 shares traded or less than 0.2% of the shares outstanding.

These are by no means the extreme cases which can be frequently found among the more speculative mining and oil stocks.

The stock market in general this year has fluctuated up and down approximately 10%, twice so far. The uninformed observer would expect that massive revaluations of Canadian industry are taking place. But in actual fact the market fall of May saw listed values reduced by $2.6 billion yet the value of the shares traded was only 0.8% of the total listed value.

Similarly in the July rise of about 10%, listed values increased $2.5 billion yet the value of the shares changing hands was $250 million or 0.5% of the total.

Impulse Buying

From these examples it is obvious that a small proportion of the shares outstanding can affect the market value of the whole in a very short time.

Because it is such a small proportion of the whole, the motives of such sellers or buyers cannot be predicted with much accuracy. One large seller might be acting on instructions from an estate, or another may be forced to raise money from whatever sources available. Similarly small groups of buyers might be entirely of the "impulse" variety and so represent no informed calculated buying.

Price changes do occur with startling speed for the reason that either the bids or the offerings dry up. In other words, if all the supply of stock is purchased, the price will quickly move up. Similarly if there are no bids a stock can fall at an alarming rate.

In view of the small volumes in these movements up and down, the investor who thinks he can get in and out again with a profit should take time to figure out the chances of finding stock available at the beginning of the swing and finding a buyer again at the end.

Values of stocks cannot possibly change as fast as the prices Canadian stocks can fall 10% in three weeks yet it is not likely the economy has changed perceptibly in that short period of time. Yet because prices move in such an exciting and ominous fashion, they exert a hypnotic effect on some investors.

In other words, some investors hope to buy a price and sell a price, rather than buy and sell a value. If such investors confuse price with value, there are good chances they will tumble in the pitfalls of bad investing with its inevitable consequences of losses.

Lacking a more descriptive term, let us call the person who buys and sells a price on a short term basis a trader. There is a well-defined and necessary place for traders because they provide day-to-day marketability. But it must be recognized that trading is a highly skilled business and frequently time - consuming. Charts of prices and volumes are essential tools to the trader, but there has to be a certain attitude and native ability present also.

The alternative person we will call the average investor. He buys stocks as part of his over-all savings program.

Such an investor should buy values and ignore day-to-day price fluctuations because they may fascinate and entice him into the role of the trader for which he has neither the time, the training, the tools, nor the inclination.

For the average investor the correct determination of values has been found to be the surest and most direct path to successful investing.

Swing High, Swing Low

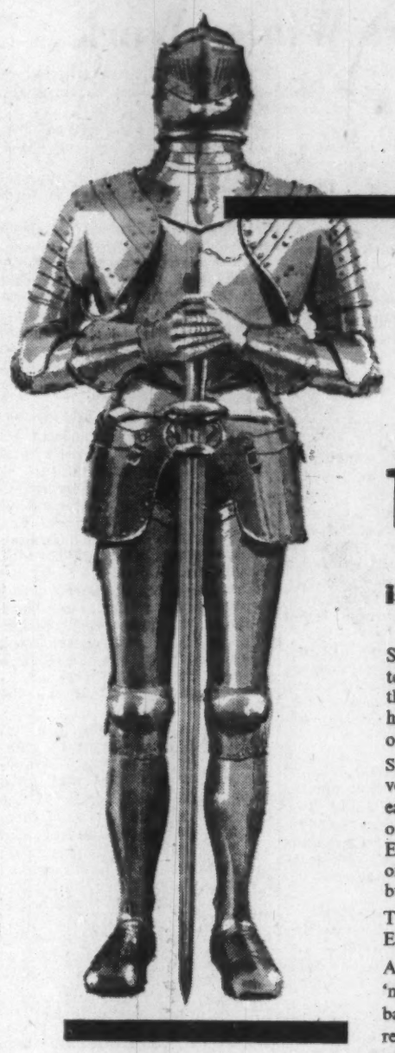
The average investor stands a better chance of making money, says Pathfinder, if he sticks to buying stocks on the basis of their earnings, dividends, prospects and similar yardsticks of value.

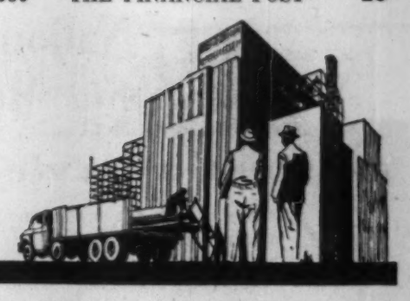
Unless he has the temperament and the know-how of the trader, he's liable to lose money trying to take advantage of short-term swings.

Pathfinder cites a couple of sharp price changes in good grade stocks which occurred without much change in the companies' operating picture. Trying to predict such swings would require a first-class crystal ball.

(1) Consolidated Paper: On Jan. 24, 1956, the market value of the stock placed a valuation of $171.9 million on the company. On July 20, the figure was $243.8 million. On Oct. 3, although the company's output is higher, its earnings are 22% above the 1955 level, and its dividend has been increased, the market's valuation was almost back to the January level, at $179.6 million.

(2) Algoma Steel: Share price on June 1, 1956, was $95; on July 31, $127; on Oct. 3, $106. The rise of more than 30% in the price in two months was accomplished on trades involving only 2.3% of the outstanding stock. The subsequent drop in the following two months occurred on transactions involving 1.9% of the shares outstanding.





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The Dictaphone Time-Master saves you time because it helps you communicate your thinking faster, easier and better. It's your servant—always at your elbow, always ready to capture all the valuable ideas that ordinarily slip away.

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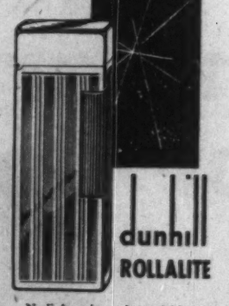

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Ask for our Succession Duty booklet.

OFFICES ACROSS CANADA FROM COAST TO COAST

Railways Tote Up Major Gains

Big new gains are being made by the railways.

In the first eight months of this year, Canada's two major lines, **Canadian National Railways Co.** and **Canadian Pacific Railway Co.**, chalked up these advances over the same months in 1955:

- Gross revenues — total $845.5 million, up 14.3%.
- Net earnings — total $43.3 million, up 36%.

When this year's advances are compared with the railways' 1954 record, the picture is even brighter.

First eights months gross is running 20.3% higher. Gain in net revenues during the same period has been still more striking: Total has come close to tripling, rising from $15.4 million in 1954 to $43.3 million this year.

The following table giving a month by month breakdown of CNR and CPR net earnings shows the increasingly healthy position being attained by the railways.

	RAILWAYS* NET REVENUE 1956	1955	1954
		$ million	
Jan.	— 1.3	— 3.2	—5.9
Feb.	+ 3.8	— 1.2	—0.9
Mar.	+ 7.3	+ 7.8	+3.6
Apr.	+ 4.1	+ 6.1	+2.6
May	+11.6	+ 7.4	+2.7
June	+10.6	+11.9	+5.0
July	+10.2	+ 6.7	+5.3
Aug.	+12.6	+ 8.0	+2.4
Sept.		+ 8.4	+4.1
Oct.		+10.5	+6.3
Nov.		+10.4	+7.7
Dec.		+ 5.5	+4.4

* CNR and CPR only.

In recent months, increased freight rates have contributed to this better earnings picture. In June the Board of Transport Commissioners authorized an interim increase of not more than 10% from July 1 to Oct. 1 of this year. And in the past year, little increase in the volume of maintenance work together with economies obtained in using diesel power have also improved earnings.

But a major factor in growth of revenues is bigger freight car loadings. With an accelerating pace of business throughout the year, growing export volume and more intensive resource exploitation, car loadings are setting new records.

From the beginning of January until the end of September, over 3.3 million cars were loaded, an average of 9.9% more than in the corresponding period last year. This is 21.6% above the number loaded in the first nine months of 1954.

"In the first eight months of this year: Gross revenues — total $845.5 million, up 14.3%; Net earnings — total $43.3 million, up 36%."

Grain has accounted for much of the steady year-to-year increases. With sharply improved export markets, freight cars loaded with wheat totaled 350,400 in the first nine months of this year compared with 246,600 in the same months in 1955.

Iron ore car loadings also account for a big part of the total increase. Now the second most important single commodity carried on the railways, these loadings are almost seven times as great as they were two years ago.

Here are preliminary totals of the number of cars loaded so far this year by chief commodities carried.

Commodity	No. of cars — 000 —	Year-to-year change %
Grain	350.4	+42.1
Iron ore	190.8	+43.9
Coal	186.1	+ 5.1
Lumber	172.8	— 5.1
Sand, gravel	162.6	+ 0.5
Pulpwood	147.4	+12.5
Non-ferrous ores and concentrates	128.2	+ 6.1

Not included in the above list are two categories of importance to the total. Miscellaneous car load commodities not specified amounted to 217,700 cars in the first nine months of this year, up 9.5% from a year ago. Merchandise shipped which was less than a car load filled 536,900 cars in the January-September period, over 1.2% more than last year.

Smallest year to year increase took place last month. While most increases each month have been 9%-12% over year-earlier totals, September's increase was 1.2%.

Decreases in the last nine days of the month pulled September's total car loadings down to 380,100 as against 375,800 in the same period last year. In the last few days of the month commodities carried in smaller quantity included: grain products, coal, sand, cement, lumber, autos and items less than car loads.

However, during this period of decline, the items which have contributed most to the year-to-year increases — grain, iron ore, pulpwood — still required more cars than was the case a year earlier.

Although some two-thirds of all freight car loadings originate in Eastern Canada, loadings in Western Canada have shown the more rapid year-to-year increase.

In the first nine months of this year, loadings in the east totaled 2,149,500, an increase of 7.3% over the same months last year, and up 20.6% over loadings in the first three quarters of 1954.

Loadings in the west, meanwhile, totaled 1,159,400, up 14.8% from a year earlier and 23.4% from two years before.

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More Canadians Go to Jamaica

The Toronto branch of The Jamaica Tourist Board is moving its offices from 347 Bay Street to a much larger suite in the King Edward Hotel. The move will take place at the end of October.

Due to tremendous increase in business from the Toronto area, and Jamaica's increasing popularity with Canadian travelers, generally, present quarters are no longer adequate.

The Board's Toronto operation, under direction of Kenneth D. Bradshaw, was opened a little over a year ago to promote and facilitate travel to this Caribbean island.

$1.2 Million Drawn Steel Stock Offered

For the first time in its history, stock of **Canadian Drawn Steel Co.**, Hamilton, is being offered to the public.

An issue of 121,860 cumulative participating preferred shares, no par, is being offered at $10 each by **Fry & Co.**, Toronto. Shares are entitled to a 60c annual dividend and to additional dividends in years in which net profit exceeds $150,000.

None of the issue proceeds will go into the company treasury.

The current offering represents Fry & Co.'s acquisition of 20,310 former common shares, at $90. each. It purchased 13,457 from Mrs. Timothy Eaton; 52 shares from the estate of Charles R. Brown; 515 shares from H. D. Brown; 515 shares from A. A. Brown; 505 shares from Mrs. D. W. Brown; and 5,266 shares from other shareholders.

All the former 24,640 outstanding common shares have been converted since the Fry purchase, on a six-for-one basis, into 147,840 participating preferred shares, no par, and 147,840 common shares, no par, which will represent all capitalization authorized and outstanding upon completion of current financing.

In any fiscal year in which net profits exceed $150,000 holders of the participating preferred are entitled to receive on April 15 in the next year a participating dividend equal to 1c per share for each full $14,784 of the amount by which net profits exceed $150,000. In 1955, for example, when net profit was $326,122, participating preferred shareholders would have been entitled to 11c a share April 15, 1956, over and above the 60c payable during 1955.

Profit Picture

Net profit for the six months ended June 30, 1956, was $159,035. Net profits for the last 10 years ended Dec. 31 was as follows: 1955, $326,122; 1954, $115,537; 1953, $202,687; 1952, $105,120; 1951, $220,203; 1950 $173,821; 1949, $104,632; 1948, $83,634; 1947, $59,067; and 1946, $29,456.

A new and larger plant will be built in the near future on a recently acquired 6¼-acre site in Hamilton. This will be financed partially by sale of present land and buildings and balance will be obtained probably by a bond and/or preferred issue, it is stated. Present buildings and machinery are currently insured for $1.3 million.

Company converts hot-rolled steel bars into cold-finished bars. It employs about 100 persons at its Hamilton plant. The operation has been financed almost entirely by Canadian capital.

In the past 16 years it has spent over $1 million on improvements and maintenance, all of which have been financed from net profits.

Directors are Ralph Biggar, Dundas, Ont., president and general manager; R. J. Elliott, Vancouver; H. C. Hatch and M. B. Holton, of Hamilton; and D. J. Wilkins, Toronto. B. C. Evenden, Hamilton, is secretary and sales manager; H. L. Howe, Ancaster, Ont., treasurer; and Warren Biggar, Ancaster, comptroller and office manager.

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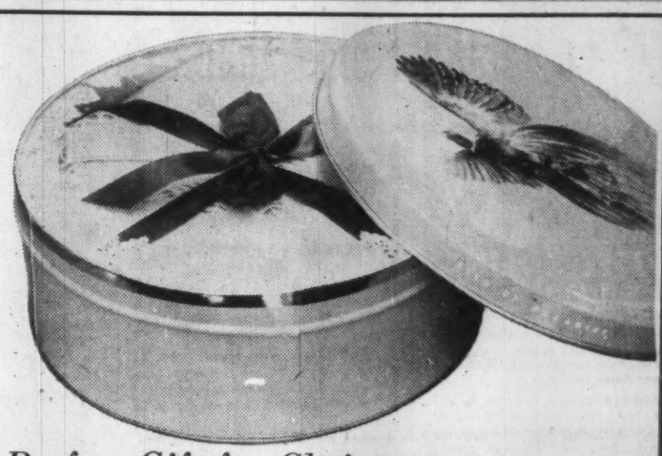

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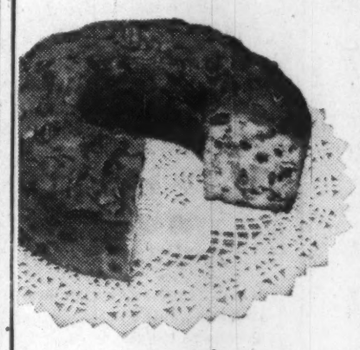

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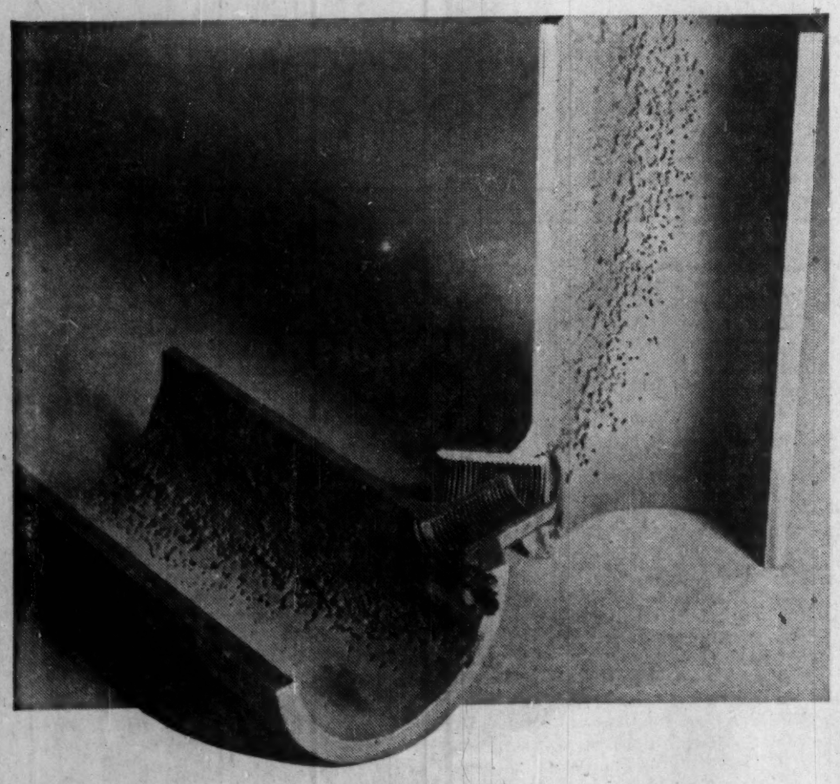

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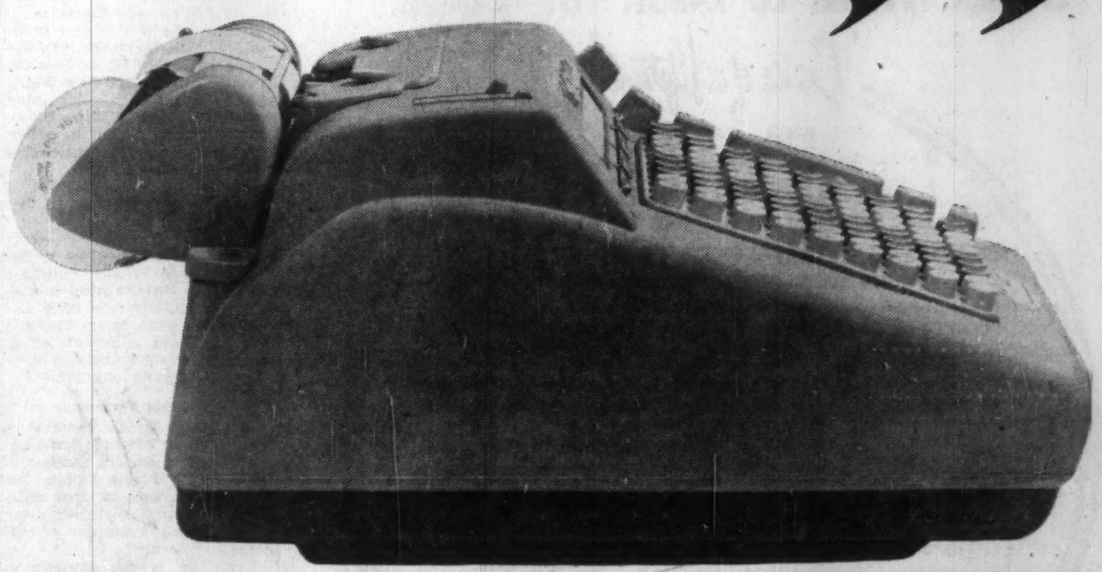

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POST TRAVEL BUREAU

Where to go - how to go - where to stay

CUBA HAS EVERYTHING. That, at least is what the Cubans will tell you. And the holidayer will be inclined to believe them. There's no shortage of strange and beautiful sights and sounds in the island republic and its cosmopolitan capital, Havana. As for characteristic retail items, tourists like those above can easily pick up alligator goods, woven hats and purses, cigars and rum in the many shops.

Whir of the 'Wheel' Rhumba Rhythm In Havana at Night

By B. W. RIDDELL

"You pay your money and you take your chance" in Havana. Cuba's capital is the "gamblingest, gayest city in the world."

Gambling is part of a night life that is as sophisticated as that of Paris or New York. At the fabulous National Ca..ino you can dine, dance and watch the "wheel" go round. Outside a sub-tropical moon shines on a fountain of dancing nymphs.

At the famous glass-roofed Tropicana, the Montmartre and other larger night clubs you can try your luck at roulette or chemin-de-fer.

In a city that hates to go to bed there is every kind of after-dark entertainment. Cuban rhythms, now popular the world over, are at their best in their homeland. There is excellent live music at the smallest cabarets and bars.

Most night spots have at least one show featuring famous international and local stars.

But nightly frolic and fun are not Havana's chief attractions.

Here is one of the most beautiful cities in the world. To approach by sea or fly in over the harbor is to witness a view that is unsurpassed. On one side stand the grim old forts of Morro Castle and la Cabana — on the other, bright-painted houses overlooking the blue-green sea.

A city of contrasts and a museum of architecture, it has the best of old and new.

The ancient section is truly Spanish and boasts some of the finest Spanish colonial buildings extant. See the twisting cobblestone streets, romantic little balconies facing out to sea, the iron grilles and tiny courtyards. Visit some of the interesting and beautiful 16th century churches.

Ancient Fortress

Plaza de Armas contains a large number of early buildings including the ancient fortress of La Fuerza. Aldama Palace, facing the gardens of Fraternity Plaza, and San Francisco Convent are excellent examples of the early architecture.

Grandeur is the keynote of modern Havana. Public buildings are on a monumental scale with marble of many colors used for decoration. Here are some of the noblest avenues in the world.

Explore the city, and see as much of it as you can. There are a large number of conducted tours through the city, or taxis if you prefer to do it on your own. You will certainly spend some time in Paseo de Marti or Prado Boulevard — centre of Havana's social life and called the Champs Elysées of Cuba. Don't confine yourself to this. Drive the full length of spectacular Malecon Drive which extends along the waterfront from the Prado to President's Avenue.

In the swank Vedado residential section, look at the homes — there are some fabulous ones. Take a trip to Miramar, another suburb worth seeing.

There are a number of lovely drives in the outskirts of Havana.

A highly cultured city, Havana will interest travelers who appreciate the arts.

Excellent classical concerts may be heard at the auditorium in the Vedado section of the city during the winter season.

Havana boasts a fine ballet company and many famous companies from abroad perform here.

In painting and sculpture, Havana is now one of the world's important centres. Visit the new Palace of Fine Arts — a triumph of art in itself — which houses an excellent collection of Cuban works as well as paintings from all over the world. There are other museums and galleries, and many of the old buildings and churches contain priceless works of Spanish and Cuban masters.

Gay Habaneros

Habaneros are not only gay, friendly and courteous to visitors, — they are interesting. They combine the romantic, artistic traits of their Spanish ancestors with North American aggressiveness.

There are rewards in getting to know the people. It's easier if you happen to speak Spanish (although many of them speak English). In any case do some browsing in the city. Stop for coffee at a sidewalk cafe—they're open from noon till well after midnight — and watch the world bustle by.

At Carnival time, Havana really lets her hair down. This gay season is not limited, as in many other places, to three days before Ash Wednesday, but continues for five consecutive Sundays. There are parades of decorated cars and floats, headed by the Carnival Queen and her ladies-in-waiting. Masked balls take place at the clubs.

The greatest attraction is the parade of Comparsas, or groups of masqueraders, dressed alike in bizarre costumes. Formed in each ward of the city by men and women of all races, the Comparsas are led by men carrying brightly colored lanterns of grotesque shapes. Followers march to the rhythm of ancient and modern tunes played on primitive musical instruments.

Good Food

Dining in Havana is an adventure. Excellent French and North American cookery is available everywhere, but Cuban dishes — a combination of Spanish and Creole recipes—are more exciting.

Here are some of the specialties: cangrejo moro—made with Moorish crab and spiced rice; langostino — giant fresh-water prawn served cold; rice with black beans or red navy beans called congri; arroz con pollo—rice with chicken; roast suckling pig cooked in the special Cuban manner.

Havana boasts numerous excellent hotels of all degrees of luxury. Among the best: The **Nacional, Comodora, Ambos Mundos, Copacabana, Colina, Presidentes, Vedado** and **Sevilla Biltmore.** There are also many attractive pensions in the old section with balconies overlooking quaint streets. Winter rates at the Nacional are approximately $13 to $16 per person, European Plan. Other main hotels cost $8 to $14 without meals. In the summer, hotel rates are considerably lower.

How to Get There

A tourist-minded island, Cuba has just about everything to make the vacationer happy. There are facilities for every kind of outdoor sport — even in Havana. There is swimming, yachting, fishing, golfing, tennis. Climate is favorable all year — averaging 83 deg. in summer and about 73 deg. in winter.

By air (**Pan American** or **National Airlines**) it's about 10 hours from Toronto, costs $191 first class or $183 tourist, return. An overnight car and passenger ferry service operates from Miami to Havana for those who are including Cuba in a motor trip. Charge for each car is $54. Passenger fare, which includes meals and a stateroom, is $60 with tax.

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THE 1957 ALL-MEDITERRANEAN CRUISE — "BRITANNIC" from New York Jan. 25 - 66 days

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Bruce Hutchison writes about:

The Lonely Drill

By BRUCE HUTCHISON

Having a strong aversion to facts and a childish horror of statistics, I began to grasp the sweep of the Canadian revolution only when I rode into the Rockies the other day on horseback and confronted a staggering spectacle.

There, on a flat, naked mountain, 8,000 feet above sea level and a mile above the surrounding prairie, stood an oil drill. It looked like a black numeral against the cold, metallic sky — a statistic that even I could understand.

The ravenous search for oil had penetrated the ultimate recesses of the Rockies. The industrial revolution had reached the lonely continental divide.

It was hot that day down in in the Highwood Valley and the foothills floated in the liquid gold of autumn poplar. Up here on Plateau Mountain —old Flat Top as the natives call it — a perpetual, cutting wind blew out of the glaciers to the westward. The bare rock was streaked with glistening veins of ice. Bundled up in three sweaters, I shuddered and soon retreated, wondering how men could live and work here all winter.

Yet the oil drillers had built a broad road into a region fit only for mountain sheep and goat, had rigged up their giant drilling outfit, surrounded it with a village of trailers and now were boring straight down through a mountain to the underlying pool of Alberta oil.

* * *

Layman's Madness Common Sense To the Geologist

To the layman this enterprise seemed to be stark madness. To the geologist, the well above the clouds appeared highly promising. If it pays off, there will be many others.

When an American magazine published a piece of fiction, a few years ago, about an imaginary oil well high in the Rockies the folks of Turner Valley read this fable with derision. Why bore through the deepest layer of the continent a few miles from the flat prairie?

Today the fable is a fact.

Hundreds, perhaps thousands of miles of jeep roads are being carved through the last secret niches of the mountains. Experts are making their seismographic studies, departing in silence, planning new oil wells and paying local labor to cover over their tracks with fallen timber. Travel is discouraged in what may be a new oil empire.

With James Riviere, who was born and raised in the mountains, I rode west of Pincher Creek into a remote valley inhabited, as long as anyone could remember, only by Riviere's father, the famous soldier of fortune known as "Frenchie."

There I beheld another drill towering over the site of old Riviere's cabin. The endless bit of steel whirled and groaned a few yards from the grave where the redoubtable "Frenchie" had expected to rest in peace after nearly 90 years of adventure.

We pushed upward, led our horses across a dizzy mile of rock slide, almost rolled down into British Columbia and camped that afternoon in a warm woodland glade beside a tinkling cataract of ice water.

* * *

You Can't Escape The Oil Man's Revolution

By the time we had cooked dinner our bucket was half frozen. The Big Dipper wheeled up suddenly over our narrow canyon and the harvest moon turned the Rockies to burnished silver. Here at last, I thought, we had escaped the last mark of the revolution.

Next morning (after consuming thirteen of Riviere's hotcakes) I looked out through a gash in the mountains to observe, on the checkered linoleum floor of the plains, a curious, gleaming object the size of a pin head. That was the new refinery of the vast Pincher Creek gas field, from which fuel will soon move to the city of Toronto. There is no escape from the revolution.

This process cuts deeper than you might suppose, with effects seldom noticed in the headlines. It is revolutionizing, for example, the whole cattle industry of the foothills, the industry that first brought settlement to Alberta out of the adjoining American states.

Billy Henry, of High River, last of the cattle kings—a tiny, fragile man who once drove a herd of beef animals to Dawson City in the gold rush—can remember the days when no fence enclosed the Alberta rangeland, when the ranchers combined twice a year with an army of cowboys to round up a hundred thousand head and ship them on the newly built CPR.

Now it is almost impossible to hire a cowboy and, the old-timers complain, the ancient art of cowmanship is becoming a lost art. Why should a man work for about $150 a month on a ranch if he can make $15 or more for an eight-hour day in the new urban industries? For the ranchers the result is to reverse the whole economic trend of our times.

While urban industries are growing in size, concentration and mass production, the big ranches are being cut up into ever decreasing units that one man, with a son or two, can manage alone.

* * *

It Costs A Lot To Put Steak On the Table

After you have lived for a week with such a man, and observed the expense of his little business—the machinery, supplies and what labor he can find — you realize why beefsteaks cost so much at the butcher shop.

A fat young steer, scowling from the roadside, it not a sight to impress the economist. But he is worth close to $200 as he stands. A man who owns a small herd, say 300, is a capitalist, though he seldom realizes it.

The capitalistic system (so-called) appears in its purest form at a cattle auction in some town like Pincher Creek.

An auctioneer in cowboy hat and high-heel boots (for dramatic effect, I suppose) stands at a rostrum and utters an endless singsong in a language which only a cattleman can understand.

A dozen steers are whipped into a muddy ring. The hard-faced buyers eye them shrewdly, raise a finger and instantly establish the price of prime beef at 20.3 cents a pound on the hoof. That price, with various additions, will be transmitted to the butcher shops of the nation.

Or, if half a dozen aged cows appear, the price drops to perhaps 9.7 cents, to the private annoyance of the cattlemen. They know that cow beef, well fattened in the spring, is the best of all, the popular baby steer being valued only by ignorant housewives.

Thus all day long, as the auctioneer drones on and the cattle disappear into the waiting stock cars for their last journey, the capitalistic system turns on an extremely fine margin of competition.

* * *

Alberta: Vintage Wines, Swimming Pools, Indians

The cattlemen are having their troubles but, like everyone else in Alberta, they are doing fine on ranches beneath the contempt of the old-timers.

What a province these people own! They will tell you, and I can believe it, that Alberta is the richest area in the nation—cattle in the foothills, wheat rolling from the American border almost to the edge of Great Slave Lake, forests, cities, towns and, beneath this opulent surface, the dark sea of oil and the inferno of gas compressed there in the hot youth of our planet.

Not a province at all, really, or a community, except by political definition, but a congeries of separate and diverse civilizations.

You may lunch with the tycoon of Calgary and dine in some cross-roads lunch counter with an Indian still proudly wearing long, black pigtails and his wife in mail-order dress and moccasins. Then you move on to an oil millionaire's weekend hide-out, replete with swimming pool and vintage wines.

That is Alberta in its revolution — rich, gaudy, crazy and loveable. Yet in all the sudden wealth, the glitter and the euphoria of this strange land those mighty drills of steel are boring steadily, day and night, through the stone spires of the continent.

EDISON HELPED CANADA

Edison installed the generator for Canada's first industrial lighting plant at Cornwall, Ont., in 1883.

IMPORTS FROM U. S.

In 1953, nearly 50% of all refrigerators and freezers sold in Canada were imported from the U. S.

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This executive's office (for one of Canada's motor-car producing companies) was panelled in quarter-striped African mahogany in a light and modern finish—by "Valley City" of course.

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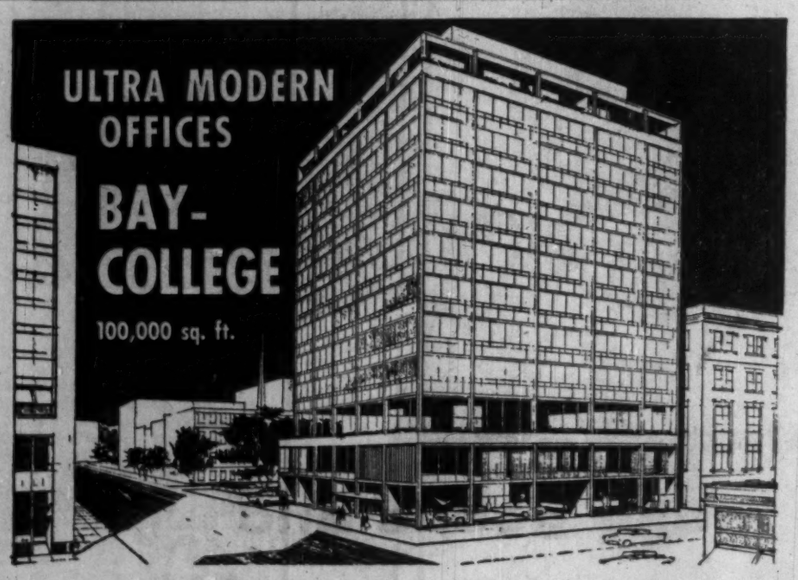

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Newsprint Prices Rising In the U. S.?

MONTREAL (Staff) — High construction cost and high interest rates may bring about another increase in the price of newsprint in the U. S.

That's one interpretation placed by informed opinion here on the U. S. rumors that the price is going up again. There have been as yet no rumblings of an increase in Canada.

In the U. S. there are about eight major capacity programs under way, five through new machines at existing mills, and the remaining three new mills.

In Canada the major undertakings are by nine companies through introduction of new machines. Of course, there are also speed-up programs under way in both countries.

Since the cost of a new mill is substantially higher than through a speed-up program or a new machine to an existing mill, it seems reasonable to assume that U. S. producers are runnning into increasing cost problems.

Producers in the U. S. obviously are faced with a problem of getting the mills going within a two or three-year period, while costs continue to mount.

President William Dwight of the American Newspaper Publishers' Association said:

"Publishers do not believe that another newsprint price increase is justified at this time. There seems to be no apparent need now for the manufacturers to get more income to maintain reasonable profit margins.

"The failure of many newsprint manufacturers to fulfil their contract commitments during 1955-56 has penalized many newspapers. Many publishers, in order to maintain normal standards of services to readers and advertisers have been compelled to buy newsprint on the spot market at exorbitant prices. This situation has imposed economic hardships on those newspapers."

"Ah! So that's where she gets her ideas." The evidence lies on the chair. A cake mix! . . . advertised in "Le Droit".

No mystery here. Thousands of French speaking housewives shop regularly through the pages of "Le Droit". After all, it's the only French Daily in Ottawa.

Metropolitan Ottawa spends $263,532,000.00 in retail stores every year. But because nearly *half* the people speak French — *every Grocery Chain and well over 200 other national distributors of Foods, Drugs and Cosmetics* — advertise in French, in "Le Droit".

The question is: Are you getting your share?

Canada's Most Quoted French Daily

Metropolitan Ottawa is 43.2% *French*

LE DROIT

HEAD OFFICE AND PLANT: 375 Rideau St., Ottawa, H. E. Lemieux, Director of Advertising
TORONTO BRANCH OFFICE: 112 Yonge St., EM. 3-9903, Vern B. Moore, Manager
U. S. REPRESENTATIVES: Shannon and Associates.

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New shipment from England . .

Tab Collar Shirts

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Made with detachable tab collar by this world-renowned master-shirtmaker in smooth-textured super-quality broadcloth in plain white and neat checks . . perfect for urban and suburban wear.

Sizes 14½ to 16½

HOLT RENFREW

Free Parking — 144 Bloor Street West

$25 Million Bond Issue Backs Montreal 'Place'

MONTREAL (Staff) — Big (6 ft.), burly (more than 200 lb.) William Zeckendorf, the man with the Midas Touch in the real estate world, is on the move in Canada.

With a few quick strokes of the pen in the board room of the **CNR** last week, with TV cameras grinding and flash bulbs popping, Zeckendorf and CNR President Donald Gordon signed the long expected deal involving the future terminal development in the heart of Montreal.

The ink was scarcely dry on the paper when Zeckendorf disclosed his firm, **Webb & Knapp (Canada) Ltd.** was studying other ventures coast-to-coast in this country, at present was actively interested in Toronto and Vancouver and two other centres which he wasn't at liberty to divulge.

At mid-week, underwriters were preparing to float a $25 million issue of Webb & Knapp (Canada) Ltd., to provide the real estate giant with funds to embark on the Montreal development and other projects under consideration.

Though full details of the issue have not yet been released, it is reported the offering will take the form of long-term notes to be sold in units of $1,000 accompanied by 50 shares of Webb & Knapp (Canada) common. In addition the units will bear warrants for purchase of a further 50 shares of common up to 1966.

Sold In Canada

Part of the issue will be sold in Canada, the balance in various European countries but none in the U. S. In Canada the offering will be handled by a syndicate headed by **Dominion Securities Corp.** and **James Richardson and Sons** while European placement will be managed by **Dominick Corp. of Canada.**

After giving effect to the pending offering, capitalization of Webb & Knapp (Canada) Ltd. will comprise $10 million in $1 par common shares authorized of which 2,700,000 will be issued and outstanding; 200,000 5% preferred shares ($5 par) issued and outstanding and $25 million in long-term notes.

In the Canadian scene, Zeckendorf envisages that projects in some cases will be industrial, others retail and office buildings and special purposes.

He indicated the Toronto project would not likely be as large as the Montreal one but was the largest in Canada of the four outside this city now contemplated. Presumably, he referred to the U. S. when he said:

"This concept in Montreal will be as large as anything we have completed to date but not as large as others in the formative stage."

Zeckendorf is the guiding genius behind Webb & Knapp Inc. and has dealt with design, development and redevelopment of buildings generally with the future of cities and possibilities of land.

Safety Valve

The CNR has a safety valve concerning a masterplan to be draw up by the new Canadian firm within six months for the whole 23-acre area.

The plan must be acceptable to the railway's board of directors within this period and Webb & Knapp (Canada) must spend at least $250,000 in preparing the plan.

When the plan is accepted by the CNR, Webb & Knapp (Canada) will lease 4.4 acres of the 23 acres in the area for a period up to 99 years. There are provisions for renewals totaling not more than an additional 99 years.

The 4.4 acres must be developed under the agreement within five years of the date of the lease. It lies in the block bounded by Dorchester, Cathcart, Mansfield and University Sts. and will be divided by the CNR's plaza.

Webb & Knapp (Canada) will deposit with the CNR security of $500,000 for the performance of its obligations when plan is accepted. The plan will include construction of substantial amount of office space.

For development of the project beyond the 4.4 acres, Mr. Gordon pointed out Webb & Knapp (Canada) will have no option or preference but will have equality of opportunity in submitting proposals for its development. So, that move appears to assure outside interests of a chance to participate at a later date.

The plaza in the centre of the city will be called "Place Ville-Marie" honoring the first community on the site of what is now Montreal. The CNR released details of its long standing plan to develop the area but it was pointed out these were CNR "concepts." Presumably, Webb & Knapp would likely conform to the general idea.

Established in November, 1955, Webb & Knapp (Canada) Ltd. has the aim of conducting large-scale real estate development operations throughout the country.

The Directors

Two thirds of its 18-man board of directors are Canadians. In addition to Mr. Zeckendorf, Sr., the directors are:

Robert B. Anderson, president, **Ventures Ltd.**

William A. Arbuckle, president, **Great Britain & Canada Investment Corp.**

Ralph D. Baker, general manager, **James Richardson & Sons.**

Lionel A. Forsyth, president, **Dominion Steel and Coal Corp.**

Louis P. Gelinas, president, **Geoffrion, Robert & Gelinas, Inc.**

Albert E. Grauer, chairman and president, **British Columbia Power Corp.**

John D. Johnson, chairman, **Canada Cement Co.**

Hon. Ray Lawson, chairman, **Lawson & Jones, Ltd.**

Edward L. Love, financial consultant.

Graham D. Mattison, partner, **Dominick & Dominick.**

Lazarus Phillips, Q.C., partner **Phillips, Bloomfield, Vineberg & Goodman.**

Geoffrey E. Phipps, president, **Dominion Securities Corp.**

Jean H. Raymond, managing director, **Alphonse Raymond Ltée.**

Nicholas M. Salgo, executive vice-president, **Webb & Knapp Inc.**

John C. Udd, president, **Strategic Materials Corp.**

Colin W. Webster, president, **Canadian Import Co.**

William Zeckendorf, Jr., vice-president, **Webb & Knapp Inc.**

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MANAGED INVESTMENT

MacNab Sells Holding of Montreal Locomotive

MacNab's manager on Oct. 12 sold his client's holding of 50 shares of **Montreal Locomotive Works Ltd.** at $15.50 per share.

This along with other recent portfolio changes (FP Oct. 13), is designed to provide greater diversification he says. Proceeds of sale of two stocks were used to pay for five stocks he regards as undervalued.

Here are the portfolio changes in detail:

No. of Shares			Price per Share $	Net Amount $	Indicated Income $
	Purchases				
20	B.A. Oil	Oct. 5	43.00	868.00	20.00
20	B. C. Power	Oct. 5	41.50	838.00	28.00
20	Dom. Fdries. & Steel	Oct. 5	29.50	597.00	16.00
20	Falconbridge Nickel	Oct. 5	39.00	787.00	22.00
20	Powell River	Oct. 5	43.50	878.00	24.00
				3,968.00	110.00
	Sales				
50	Calgary Power	Oct. 5	61.00	3,026.00	100.00
50	Montreal Locomotive	Oct. 12	15.50	759.50	50.00
				3,785.50	150.00

MacNab's Manager Says:

The stock market both in Canada and in the U. S. is now recovering from a rather sharp decline extending from the first week in August, when the Dow Jones industrial average was 521.05, to late in September, when the low point reached in the industrial average was 462.35.

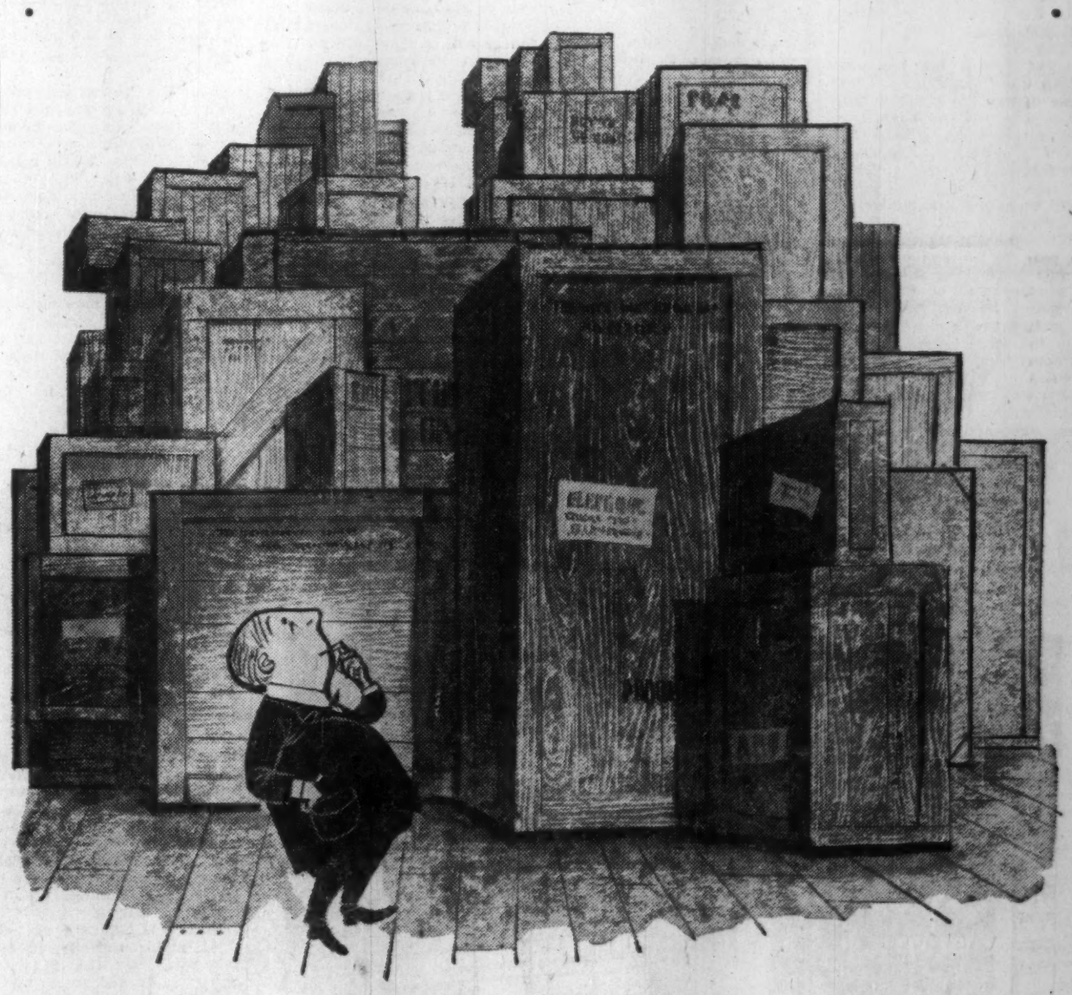
Since then the Dow Jones industrial average has improved somewhat and closed at 487.32 on Oct. 10. During this period the Toronto Stock Exchange industrial average have reacted in sympathy with the New York market. It has now become apparent that there are a multitude of reasons for this decline, including the Suez Canal situation, the U. S. presidential election, and basically a tightening of credit by the banks.

I have endeavored to take advantage of the decline in a number of stocks held in your account which appear to be undervalued at the moment, and have bought five stocks and sold two.

The Montreal Locomotive shares, bought at $17¼ last year, have been somewhat of a disappointment market-wise, and the other situations appear more attractive at the moment.

The reason for selling the Calgary Power shares, which I consider to be a satisfactory investment, is that I feel that you have too large a proportion of your account invested in public utilities at this point, and these transactions will provide more diversification in your account. It is obvious in the recent market weakness that the strong groups were the fully integrated oil companies and the steel and nickel mining companies. I have included stocks representative of these groups already in your account and am simply adding to your holdings of B. A. Oil, B. C. Power, Powell River, and Dominion Foundries and Steel, while Falconbridge Nickel represents a new investment.

A statement of your account is enclosed herewith covering these transactions. This will reduce your estimated annual income, at current dividend rates by $28 to $1,451.25.



* more than 2/3rds of all major goods and services sold in Toronto are bought by readers of the

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*Source: Gruneau Research Survey 1955

T-68

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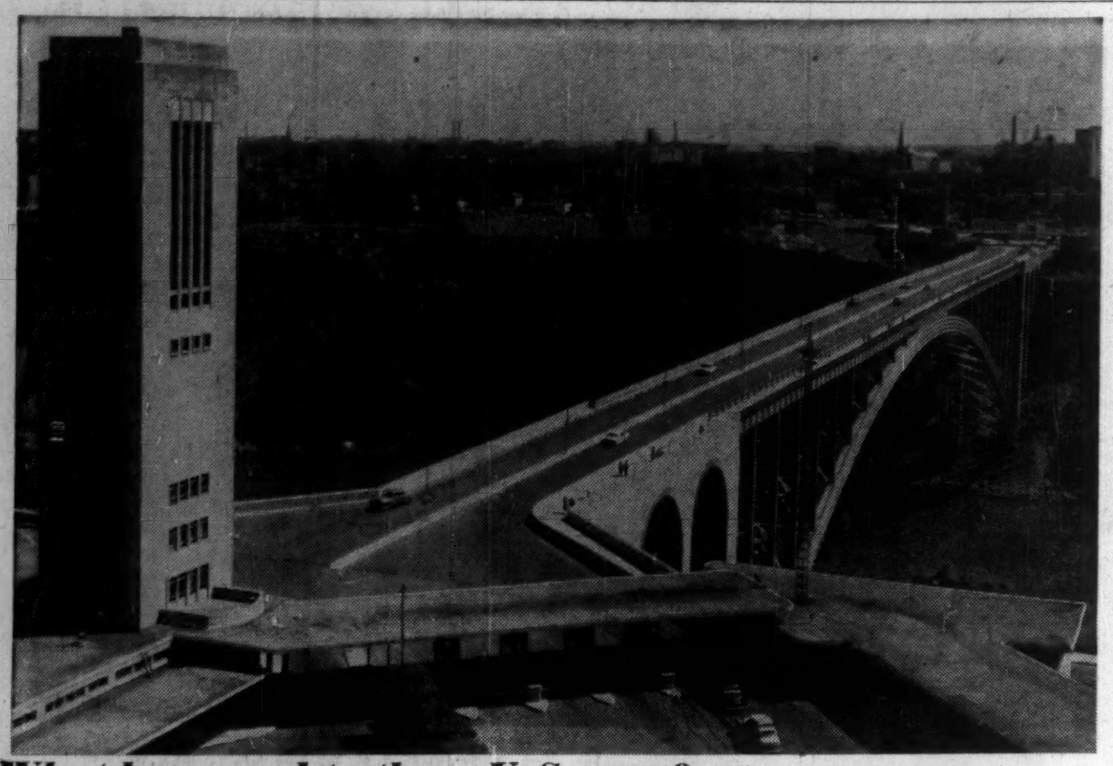


What happened to those U. S. cars?

Light traffic on Rainbow Bridge, international link at Niagara Falls, Ont.

There's Gloom in Playland— Tourism Lagging Behind Boom

By JOHN P. MACLEAN

OTTAWA (Staff) — The tourist industry doesn't know whether to laugh or cry.

The reason for smiles: Another $600 million year which figures show is on the way.

The reason for tears: The industry realizes it did that much business last year, is therefore about the only industry missing out on the boom.

Cause of the quandary is release of figures on Americans driving into Canada for holidays. These figures are the key barometer. Air, rail and boat travel represents a much smaller portion of U. S. travel to Canada.

In August, the number of holidaying Americans getting vehicle travel permits at the border was up 2.3%.

But in the first eight months of the year, to the end of August, permits were down 2.1%.

The story could be different by the end of the year, but for now the picture seems clear.

On the other hand Canadians are doing their share to help the American tourist boom. Volume of our cars visiting the U. S. in August was up 10% on the month, 9% on the year.

What's the answer to the relative drop in U. S. visitors to Canada?

Anxious tourist officials here give these reasons:

- Bad weather this summer. Over much of Canada it was cold and wet, unconducive to leisurely, relaxed holidaying.
- The U. S. steel strike. Maybe U. S. citizens didn't know how long it would last, decided to save their money.
- U. S. auto layoffs.

The Weather Gamble

But none of these three reasons is particularly convincing, even to the experts. Tourists gamble that the weather will be good by the time they get to where they're going; not too many visitors to Canada are steelworkers; and the pockets of unemployment in the Detroit area have occurred in other years.

More likely causes:

1. Some Americans don't know we're up here.
2. Mediocre (but rapidly improving) accommodation.
3. Some Canadians' disinclination to visit another province. They go south instead.

Reason for American ignorance is largely because we don't tell them. Canadian advertising is increasing, but it isn't in the same league with American.

The Province of Alberta, home of the Stampede, this year is spending $25,000. This is only as much as the Sante Fé, New Mexico, Chamber of Commerce is spending. The New Mexico State Tourist Bureau is spending about $350,000.

There are exceptions. One is the Province of Quebec which spends $250,000.

The Canadian Government Travel Bureau continues to operate with a publicity budget substantially the same size as 10 years ago — $950,000. There'll be a slight increase next year, but the total won't top $1 million.

The trend is shown dramatically in a Dominion Bureau of Statistics compilation. Since 1946, when Canada's share of the U. S. tourist dollar was 45c, our share has decreased to only about 25c.

And the outlook isn't for much improvement. The Federal Travel Bureau told the Gordon Commission last spring, in effect, that its basic hope was to hold the present share.

Seeing America First

The latest survey shows Americans, subject to "See America First" campaigns, do just that. Less than 10% of American families take trips outside the U. S.—and a growing proportion of this percentage is heading for Europe.

Europe, since 1953, has been getting more American tourist dollars than Canada, not even counting the cost of transportation there and back.

Even so, the Canadian industry could increase its share of the outside-the-U. S. tourist dollar. It's reasoned here by the experts that the overseas trip is a once-in-a-lifetime trip so far. Therefore, the other annual vacations are spent on this continent.

What's the answer? There seem to be two:

—More publicity spending by governments. The cost of advertising campaigns is large. But the tourist dollar benefits large sections of the community.

—More spending by chambers of commerce and by groups of interests in particular areas.

Accommodation is a big factor. There is, for example, no cross-Canada system of classification of motels. And dotted across the nation are out-of-date cottages still in use.

But a change is on the way. In the four western provinces, a uniform interprovincial four-star grading system is being established. Quebec, to name just one province, last year closed up 1,550 old rooms — and saw 1,600 brand-new ones opened.

Government Money

In the Maritimes, provincial governments are lending money to tourist operators for capital improvement.

As for the reluctance of Canadians to visit provinces other than their own, the latest available survey shows one in four Canadians has never been outside his own province. Only one in 100 has visited all 10 provinces.

Yet even back in 1949, date of another survey, more than 60% of Canadians had been to the U. S. Current surveys by Canadian magazines show that between 30%-40% of holidaying Canadians visit some part of the U. S.

Many Canadians this year stayed inside their own provinces. Figures show this percentage as 47.4, with 25% going elsewhere in Canada, 26% to the U. S.

The Canadian tourist dollar — worth $300 million to the industry — is getting attention, too. There's constant prodding of the Federal Government to get the Trans-Canada Highway finished to help spread the flow of business across the country.

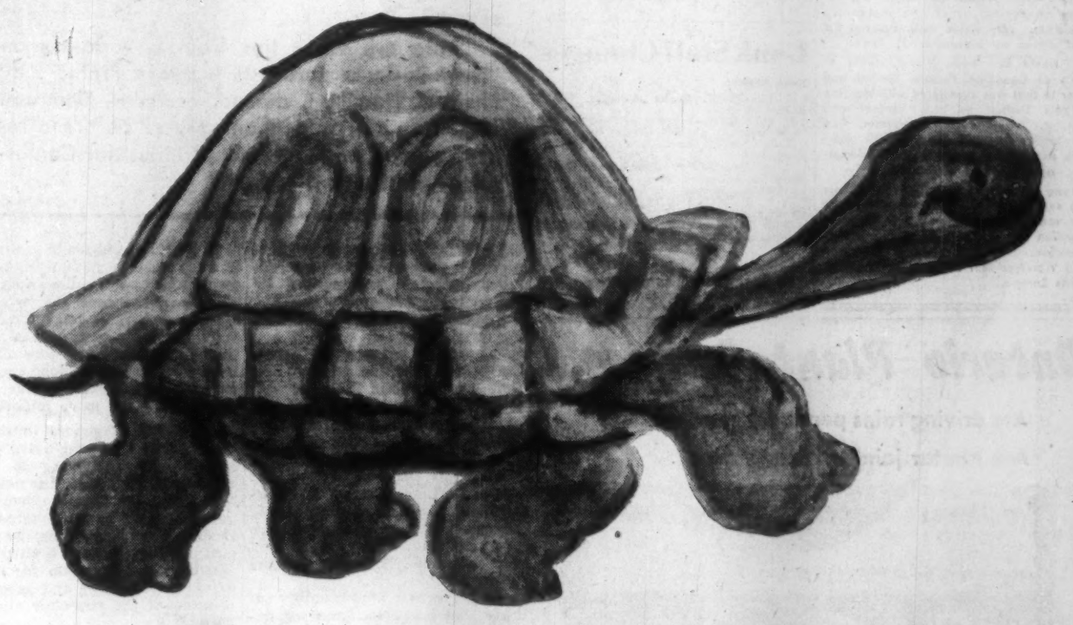
Here's how the tourist dollar is spent, according to various provincial estimates:

	Source of Estimate		
	Que.	Man.	Ont.
Retail	.30	.28	.19
Food	.22	.19	.19
Accom.	.15	.25	.30
Transport	.19	.13	.12
Amuse'ts.	.08	.04	.12
Misc.	.06	.11	.08

There are a variety of restrictions irritating to tourists. Some of them:

1. The general, Canada-wide prohibition on carrying liquor across the border into Canada, or even province-to-province. Quebec alone allows U. S. tourists to bring in a quart.
2. Americans can bring only one carton of cigarettes into Canada. This is a case, experts say, where a more liberal attitude could well be shown.
3. The Trans-Canada Highway

Sometimes (like the turtle)
an agency makes progress
only when it sticks
its neck out



In case you're curious, Y & R research, turtle division, has come up with the following information:
1. A turtle can move with its head inside the shell.
2. A turtle *usually* sticks its neck out when moving.
3. A turtle is likely to *move faster* with its head outside than inside.

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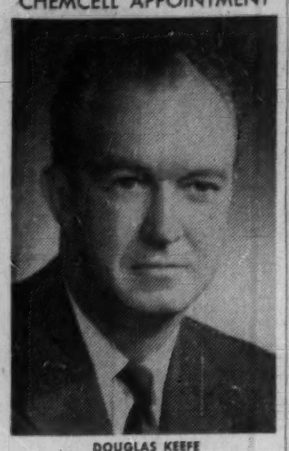


DOUGLAS KEEFE

The appointment of Douglas Keefe as Vice-President, Textiles, of Canadian Chemical & Cellulose Company, Ltd., has been announced by M. W. Mackenzie, president. Mr. Keefe will assume his new duties on November 1, 1956.

Mr. Keefe has been Vice-President of Sales of Canadian Cottons Limited and prior to that was associated with Harding Carpets Limited as Vice-President and Director. He has been associated with the textile business for over 30 years with extensive experience in manufacturing, administration and sales.

Among his many activities Mr. Keefe has served as Chairman and Member on the various committees of the Canadian Woollen & Knit Goods Manufacturers Association. He has also served as Director and Vice-President of the Canadian Contracts Bureau.

How to Plan for Profits

Some Points to Watch in Preparing Forecasts

How does your firm estimate sales and earnings for next year? the years ahead? What about general business forecasts, market research?

Here are some tips from an address on "How Business Forecasts Increase Profits", by Philip B. Hamilton, director of Sales, Dennison Mfg. Co., of Framingham, Mass., before a recent session of the National Industrial Conference Board in New York.

By PHILIP B. HAMILTON

This talk is a brief discussion of how the Dennison Manufacturing Co. uses forecasts in estimating and budgeting its sales and how their budgeting process serves to increase earnings. For many years Dennison has been a leader in the paper converting field. Its principal product lines are: (1) commercial and social stationery products; (2) gift wrapping and crepe paper; (3) tags and labels; (4) machine systems, involving electronic data processing; and (5) paper boxes and jewelers' findings.

The company has a nation-wide selling organization specialized by territory and, to a large extent, by product line. At the home office in Framingham there is also a merchandising organization, set up on product line basis. The heads of both of these organizations report to the executive vice-president, who is also director of marketing.

Each year Dennison's selling and merchandising organizations jointly prepare a three-year sales forecas. The forecast for the immediate year ahead also becomes the basis for the company's sales, operating, and financial budgets for the coming year. The key people instrumental in this forecasting and budgeting work are furnished a general forecast and related economic information by the company economist.

Significant also in this budgeting process is the analysis and acceptance of the sales budget by its factory planning and production organization. This "acceptance," along with personnel and expense budgeting, are the major tools whereby the sales estimates are translated into operating goals. I is also emphasized that broad participation by all management levels in the budgeting process is encouraged, to assure good communication and to gain company-wide support of the budget.

Daily, weekly, and monthly reports of sales performance are developed by the company's sales and accounting department. These reports, along with other accounting and economic information, serve to inform the management of progress under the budget. Twice during the year at four-month intervals the budgets are completely revised.

Direct and Indirect Benefits

Admitting that it is difficult to specifically identify the effects of good or bad forecasting and budgeting, Dennison is convinced that such planning is well worth the effort. The principal areas from which it is felt that benefits flow are:

(1) better planning of needs for manpower, machines and space;

(2) better conduct of training of producing, marketing and administrative personnel;

(3) better production scheduling and inventory control;

(4) more effective management and direction of sales and merchandising effort; and

(5) more effective cost control and financial planning.

Longer-Range Forecasting

Dennison feels that good forecasting and budgeting are of especial value when it comes to new products and major projects. In such cases large and long-run commitments are quite often involved, so the need for accurate market insight is imperative. It is a question, however, as to whether general business forecasting is very helpful here. Good specific market research and product development seem more important.

The value of general business forecasts in one-year sales estimating and budgeting is also questioned, because of the need of a forecast by specific items, if good planning is to be achieved. Despite these limitations, the general business forecast is still very useful as a foundation for more detailed forecasting and as an indication of the economic climate ahead.

For its company-wide longer-range forecasting, Dennison now uses a three-year sales estimate, developed each year along with the original sales budget for the coming year. This forecast is used not only for product development planning, but also for facilities, financial, and organization planning as well.

Dennison has used other forecasting periods, such as five years. However, it now feels that, where all products are forecast and a complete sales estimate is made, a three-year forecast is appropriate for general planning purposes.

Bank Staff Changes

Nova Scotia:

J. P. CROW, to be manager, North Battleford, Sask.

L. W. SMITH, manager, Derwent, Alta., to be manager, Dawson Creek, B.C.

R. W. SMITH, to be manager, Morrisburg, Ont.

J. H. MacEWEN, accountant, Queen Mary Rd. & Decarie Blvd., Montreal, to be accountant, Somerset & Bronson, Ottawa.

P. R. PAINCHAUD, to be accountant, Sherbrooke, Que.

G. B. JORGENSEN, to be assistant accountant, Amherst, N.S.

* * *

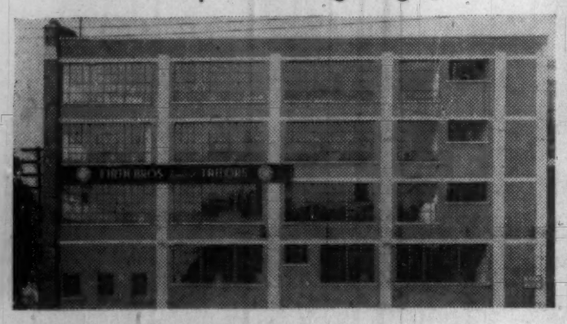
Montreal:

H. D. COUGLER, to be manager, new Oshawa shopping centre branch, King St., Oshawa, to open Oct. 15, 1956.

Ontario Plant Owners...

Are driving rains penetrating your walls?

Are mortar joints disintegrating?



If so, the A. C. Horn Remedial Contracting Dept. will make the walls water repellent and give a workmanship guarantee.

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A. C. Horn Co. Ltd.

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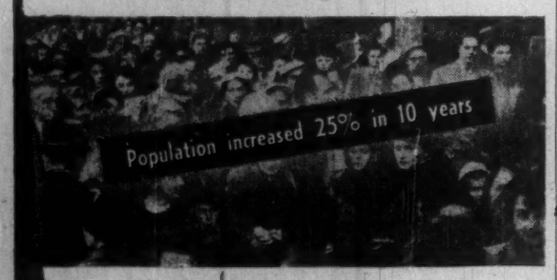
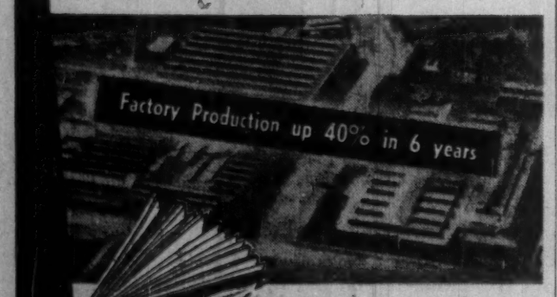
Toronto, Ontario

AUSTRALIA



Continues to grow



Vast Opportunities

American enterprise can pride itself on a success story in Australia. So much so, that many great American Corporations are increasing their Australian investment. The reason for this is easy to see . . . Australia is growing fast; every migrant ship swells the manpower needed to exploit the vast natural resources and industrial potential.

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Melbourne, Australia.

New U.S. Customs Deal Helps 200 Firms Here

Since the U.S. customs appraiser at Buffalo, N.Y., was instructed earlier this year to advise Canadian exporters on their particular problems, he has dealt with 200 such cases, President D. B. Gillespie of the Canadian Exporters' Association told the World Trade Club of Detroit.

The appraiser, E. J. Cannon, was given his special duties three months after a delegation of CEA officials visited the White House to discuss Canada's problems in exporting to the U.S.

Mr. Cannon was instructed to consult with any Canadian manufacturer who may want his advice as to classification and valuation of goods. He was authorized to go anywhere in Canada to meet the Canadian manufacturers.

"Mr. Cannon was extremely enthusiastic about the work which had been given him to do, and told me that he had already dealt with over 200 cases with Canadian exporters, many of which would show tangible results," Mr. Gillespie said.

"Our complaint (to the White House) dealt with customs practices at border ports, completely legal, but reacting badly against the importation into the U.S. largely of Canadian-finished products or consumer goods."

Manufacturers found that although there was a market in the U.S. for many Canadian products, pressure would be brought to bear as soon as business got rolling, said Mr. Gillespie.

"It was found that some decision by a local appraiser, perfectly within his legal rights, was made, which restricted or stopped the flow of these goods.

"There were other cases where products would move quite freely through one port at a certain rate of duty and valuation, whereas through another port a decision would be made which made the flow of the product impossible."

Appointment of Mr. Cannon was "very gratifying," said Mr. Gillespie, and showed the extent to which U.S. administrative officers were prepared to go to remove any practices which might appear unfair.

Mr. Cannon will attend the CEA convention at Montebello, Que., Oct. 22-24, to answer members' questions.

MIF Holds More Commons, Bonds

Assets of Mutual Accumulating and Mutual Income Funds were 83.42% invested in common stock, 15.17% in bonds and 1.41% in net cash and receivables at Sept. 30, 1956.

A year earlier, commons comprised 82.95% of the funds' portfolio, bonds 11.65%, and net cash and receivables 5.40%.

Because of an erroneous quotation, market performance of Mutual Income Fund was stated incorrectly in a table on p. 23, The Financial Post, Oct. 6. Asked price of MIF shares Oct. 1 was actually $5.64 (ex-dividend); $100 invested Sept. 30, 1955, would thus have been worth $101.08 a year later.

Average value of the 10 funds used in the sample thus increased by 1.2% in the year ended Sept. 30, 1956.

There's Gloom in Playland, Tourism Falling Behind Boom

(Continued from page 15)

isn't finished, isn't expected to be before 1960. Contrary to usual opinion, it's believed most tourists don't want four- and six-lane highways, prefer good, two-lane highways which are conducive to more relaxed driving and sightseeing.

In Western Canada there's a need for more and better east-to-west roads. U.S. tourists don't want to have to duck back into the U.S. to get from province to province.

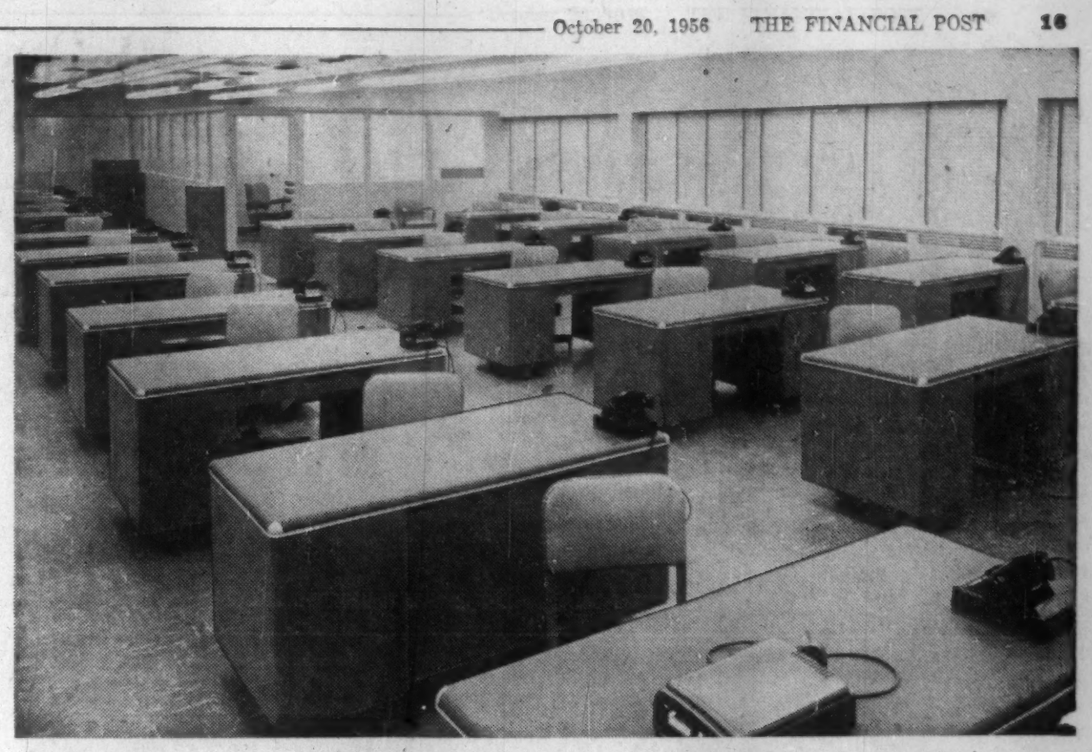
What's the outlook?

In 25 years, the Canadian Tourist Association told the Gordon Commission, the industry will be worth between $1 billion and $1.5 billion annually.

"Which of the two figures will be closest to correct depends on the extent to which the public and official opinion recognizes the widespread importance that tourist and travel business is to every part of our economy.

"Tourism is big business — our second largest industry in terms of 'invisible exports' . . .

"Apart from all economic and other considerations, there's a compelling reason for encouraging more travel within Canada by Canadians: travel might well be the most important single influence toward greater national unity."



The clean, modern styling of Sunshine Office Desks, whether in mass installation, small groups or single units, strikes the right note for functional beauty and smooth efficiency.

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Florida Buys N. S. Christmas Trees

From Our Own Correspondent

HALIFAX—One of Nova Scotia's fastest-growing industries is approaching its busy season.

The province's Christmas tree business this year expects to produce about 15% of all the nation's trees—close to three million trees altogether.

The great majority will be exported to the U. S., mostly to cities in the New England states. But one producer has orders from as far south as Florida. Others ship west as far as Chicago.

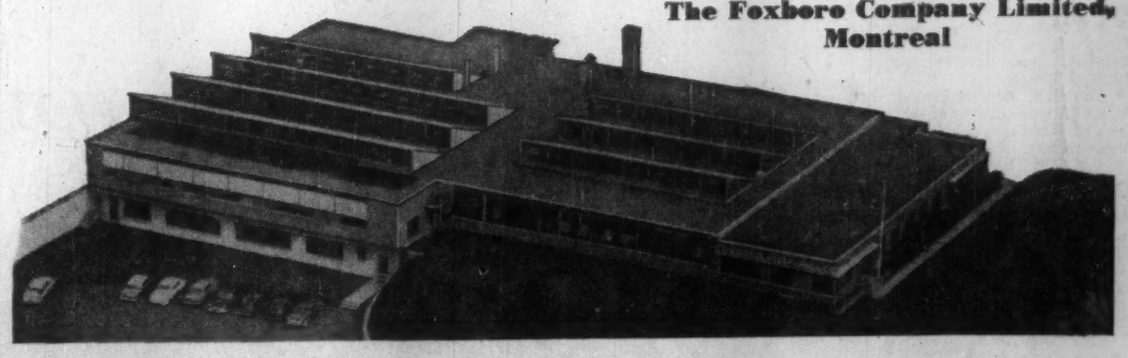
Last year Canada exported about 13 million Christmas trees worth $6 million.

BRITISH AMERICAN OIL CO. issued 200 common shares from treasury during September. Now 10,095,850 common shares outstanding.

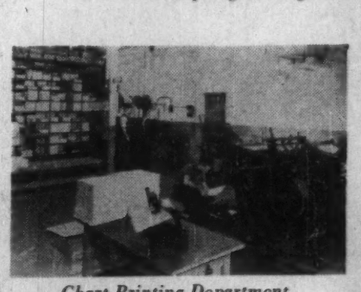
PREMIER STEEL MILLS LTD. rights began trading on a regular basis on Oct. 9.

Keeping Canadian Industry "On Stream"

The Foxboro Company Limited, Montreal



Here's the modern, highly-integrated plant that hundreds of Canadian companies depend on for *complete* process control service. Located in Canada's largest city, Foxboro makes extensive facilities for manufacture and repair of instruments easily available to industries throughout the Dominion. Top engineering skill is constantly at hand to aid in the application of individual instruments or in the development of complete control systems. And with every installation, Foxboro offers a preventive maintenance service that assures perfect control for the life of the process. For *any* Canadian plant, Foxboro provides the most convenient source of advanced instrumentation.



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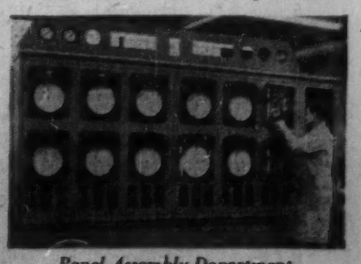
Thermal System Manufacture

Instrument Calibration Department

Instrument Assembly Department

Instrument Case Manufacture



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ABOUT YOUR TAXES By VINCENT EGAN

Borrow Without Interest? It's Not Taxable Benefit

There's no law to oblige a lender to demand interest from a borrower. And because there isn't any such law, a taxpayer won his appeal against a National Revenue ruling which had added a hypothetical interest to his 1952-53 income as a "benefit."

The anonymous taxpayer received a $97,000 interest-free loan in 1949 from a company of which he owned all the stock except two qualifying shares held by the other two directors. By the time of the appeal hearing, the debt had been reduced to $49,000.

The tax assessors ruled that the taxpayer had received a "benefit" which they fixed at 4% of the balance on the loan outstanding in 1952 and 1953. Accordingly, they added $2,840 and $2,720 to his taxable income for those years.

At the hearing of the appeal, a considerable amount of time was spent in arguing about the income the company might have received by way of interest, or in other forms, if it had used this money differently.

Income Tax Appeal Board Member W. S. Fisher, noted that the company was not a party to the appeal, and the way it chose to run its business had no bearing on the case. Allowing the appeal, Mr. Fisher found that no benefit was conferred on the taxpayer by the company in 1952 and 1953.

* * *

Once again, an Appeal Board decision underlines the dangers of relying on the advice of local tax assessors.

A taxpayer put a hypothetical question to his local assessor: Would the money received from the sale of surplus earth, on a lot which was being levelled by a bulldozer, be considered income or capital gain? He was not in the business of supplying fill, he explained, but bought the lot on which to build a house for himself.

Although the practice of the Department of National Revenue is not to deal with hypothetical questions, the assessor replied in writing that the income from the sale of fill would not be considered taxable.

Thus emboldened, the taxpayer bought a 4.5-acre suburban tract for $2,000, had it levelled, sold 21,000 yds. of fill at 50c per cu. yd., and made a gain of $2,012.50. In the two succeeding years, he made additional gains of $8,169 and $5,144 from the same source.

Subsequently, the Department of National Revenue rejected his claim that the gains were capital, ruled they were taxable income. The taxpayer appealed.

Appeal Board member R. S. W. Fordham had no hesitation in finding that the sale of fill represented an adventure in trade, and that the profit was therefore taxable.

"A taxpayer should not look, as of right, to tax officials for guidance in a matter of law," wrote Mr. Fordham. "Advising taxpayers on such questions is primarily the function of practising solicitors and it is to that source of information that a taxpayer seeking advice should go."

* * *

Wins Appeal

A manufacturers' agency, **D. J. MacDonald Sales Ltd.**, won its appeal against a National Revenue ruling which had disallowed a "bad debt" write-off of $3,087 in 1954.

The loss occurred when one of the manufacturers which supplied the agency with its products defaulted on a bank loan. D. J. MacDonald, who owned 98% of the agency's shares, had guaranteed the loan personally when the bank had refused to accept the guarantee of D. J. MacDonald Sales Ltd.

The directors of the agency, however, had agreed to be responsible to MacDonald if he suffered any loss in connection with the guarantee. When the manufacturer defaulted, MacDonald paid the bank and the agency in turn paid MacDonald.

Appeal Board Member W. S. Fisher said that while he considered the term "bad debt" a misnomer in this case, he was satisfied that the agency, D. J. MacDonald Sales Ltd., would have been the original guarantor of the bank loan if it had not been for the bank's refusal to accept its guarantee.

He found that MacDonald was really acting on behalf of the company, in attempting to ensure the continuity of its source of supply of certain manufactured goods for resale. The mere fact that the expense was incurred by a circuitous route—that is, through MacDonald's personal guarantee — should not prevent the agency from claiming the deduction as a business expense. The appeal was allowed.

* * *

Assessors' Mistake

The words "office or employment" have been taken far too literally by some tax assessors, wrote Appeal Board Member R. S. W. Fordham in allowing the appeal of an anonymous taxpayer.

Assessors had ruled that a retired railway official, serving as a consultant on freight rates to a federal board at a salary of $16,000 a year, held an "office or employment." They therefore disallowed his claims for deduction of traveling and living expenses of $8,189 for the years 1952-54.

There appeared to a tendency, Mr. Fordham noted, to include within the ambit of "office or employment" any person who was paid a fixed annual sum as his total remuneration. The fallacy of considering such an arrangement as necessarily constituting an office or employment is evident by considering solicitor's annual retaining fees, or the fixed sum paid yearly by a patient to his doctor. The lawyer and the doctor remain free agents, despite these payments.

Mr. Fordham found that the appellant (who has now become a commissioner on the board which he previously served as consultant) was a consultant in the years covered by the appeal, and was therefore entitled to make the deductions he claimed.

150-Ton Derrick Pulled Out of Hat

For a steel plate works, the making of a giant catalytic cracker for a refining company is fairly routine—even if it does weigh 350 tons.

Toronto Iron Works Ltd. bid on a multimillion-dollar contract to make such a cracker for **Regent Refining (Canada) Ltd.'s** expansion project at Port Credit, Ont. It was awarded the contract.

But the agreement was that, having fabricated the cracker, Toronto Iron must erect it on concrete legs 40 ft. above the ground, ready for use.

That was a job calling for a giant derrick. And finding the derrick was no mere routine.

Construction division manager S. P. Lockhart of Toronto Iron, knew how big the derrick would have to be. Something with cables and a boom, maybe 300 ft. high and with a 120-ft. boom would do the job. It would be worth about $100,000.

To those in the construction business, the hideouts of $100,000-derricks are not hard to discover. Lockhart flew to Trinidad, saw a perfect specimen, then shied at the thought of taking it home to Port Credit via the St. Lawrence.

He investigated another in Western Europe.

Finally, down the trade grapevine came the news that there was one for sale in Canada. It was in Medicine Hat, Alta. Lockhart flew west, said he would take it. It weighed 150 tons.

It came back on six rail flatcars, arrived in three weeks. The freight bill — A fat $6,000.

Getting Ahead

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Picture of a couple on their way to Mexico

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Here's an alert, faithful audience waiting to hear from you . . . equipped with 2,500,000 household radios and almost 500,000 car radios.

Let CFRB send a representative around to show you how inexpensive and profitable a well-designed radio campaign can be.

REPRESENTATIVES:
Canada: All-Canada Radio Facilities Limited
United States: Canadian Station Representatives Ltd.
*based on Sales Management's Survey of Buying Power, Canadian Edition, May 1956.

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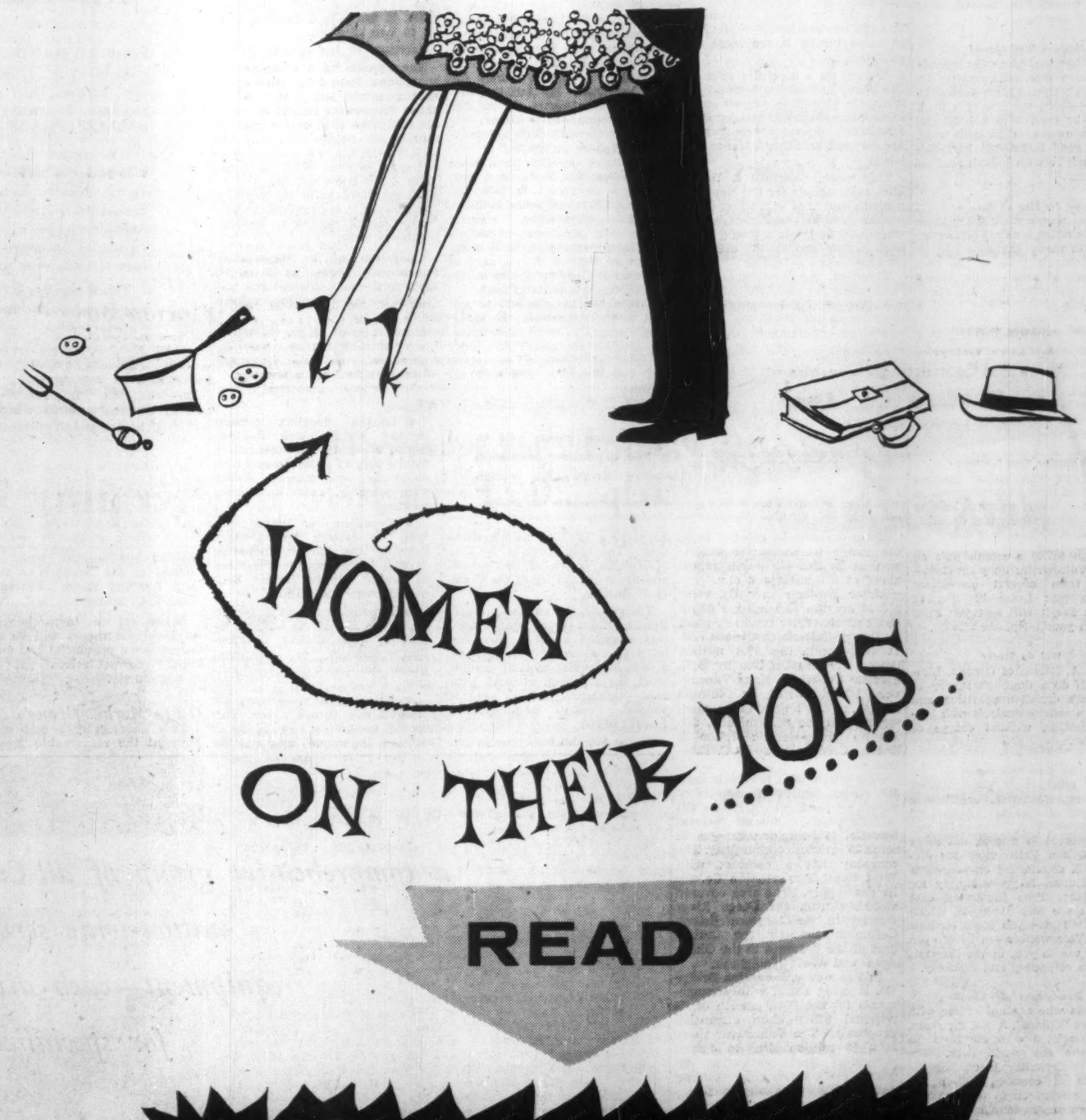

Bosses Happy

Girl Fridays Go For New Records

Most folks think office secretaries dote only on jazz and romantic singers. Not so. Today's modern misses also avidly collect a new kind of record . . . a record of the boss' voice.

Yes. Throughout the day, as bosses finish dictation, Girl Fridays put on earphones and begin transcribing letters and memos from the mellow voice of their boss coming through clearly on Edison Voicewriter records.

Reason is Sound

Behind this trend is a highly sensitive 7-inch recording disc with a capacity for a half an hour of dictation. Precision-cut and wax-coated for faithful reproduction, this popular little record eliminates any possibility of scratchy sounding words. Instead, recorded dictation changes into crystal-clear conversation.

Letters Look Good

Girls who work with this pre-eminent method of dictation claim their bosses are happy with their good-looking letters. Even new stenos catch on quickly and rattle off reams of work rapidly—with little or no retyping.

Office "brass" will be interested in three plus-factors turned up by Thomas A. Edison of Canada, Limited, in their continuing office method studies: (1) morale boost that follows installation of modern dictating machines; (2) Girl Fridays gain more hours away from typing to be all-round bosses' helpers (every secretary's dream); (3) retention value of experienced personnel—valuable in these days of secretarial shortage.

Machine Well Named

The machine that plays the records is a modern electronic wonder by Edison aptly named the Voicewriter. Compact—about the size of a book—it can be carried in a briefcase, or in its own slim portable case. And its good looks will harmoniously blend in with today's modern office decor.

Great For Men on the Go

Executives whose work takes them out of the office take a Voicewriter along with them. Dictation can be voicewritten right on to the records, which in turn can be mailed back to the office for immediate transcribing.

Three Models

Three models are available here in Canada from the Edison people. The Executive—for talking into; The Secretarial — from which stenos transcribe; and The Combination—a single unit for both voice-writing and transcribing.

Voicewriter Pays For Itself

With today's high cost of running an office, anything that succeeds in worthwhile saving warrants looking into. This is one thing that dictating with Edison Voicewriters does.

Less than $17.00 a month puts an Edison Voicewriter on your desk—choose from several convenient ways to pay: Lease it! Buy it! Chances are it will cost you even less than your telephone service.

Will do Survey

Thomas A. Edison of Canada, Limited, will do a thorough survey of an office's dictation practices, and present a concise analysis with recommendations, without charge or obligation.

For More Information

Get in touch with your nearest Edison representative, or Thomas A. Edison of Canada, Limited, 32 Front Street West, Toronto, if you are interested in finding out more about Edison Voicewriter for dictating. A convincing on-your-desk demonstration is yours simply for the asking. Free illustrated case histories are also available, which might well give you ideas on how Edison Voicewriters can be of even greater use to you, in the interests of office efficiency and economy.

Synonymous with Sound

For those who are unfamiliar with the name "Edison", it has, for years, been associated with the finest in electronics the world over. The Edison Voicewriter is one of the products of constant Edison research, carried on in the name of the company's founder, Thomas Alva Edison, who himself first successfully invented the phonograph in the year 1877.

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THE EXTERIOR

They've Got Suites for Sale

Broadloom, Drapes Included With Prices to $15,300

"Buy an apartment suite and save from 33 1/3% upward on rent," is an appeal meeting with considerable success in a major Toronto real estate venture.

In two days last week end it sold 10 suites ranging in price from $11,300 for one bedroom to $15,300 for three bedrooms, with down payments at their minimum varying from $2,000 to $3,000.

The sales, totaling about 45 since offers were first invited in July last, are of suites in four blocks, each with 21 suites, built and owned by **Neptune Apartments Ltd.** on Neptune Drive, just west of Bathurst Street in North York Township.

Sponsors of the scheme are James Ponzo and Joseph Arrigo who spent two years studying co-operative housing plans in the U. S. They came to this conclusion:

The best type of co-operative apartment development is that in which the number of apartments in a block is relatively small. Two or more blocks is the ideal development.

Erected on a carefully selected site about 30 minutes from downtown, the $1 million project is the forerunner of similar co-operative apartment developments which are planned for other Toronto districts.

This week, **Shorthill & Hodgkins,** sales agents for the Neptune project, said that in a three-week period $300,000 worth of suites were sold and totals would have been higher had all the offers of purchase been accepted.

Three of the latest apartment sales were for $13,500 cash and now the purchasers can live in their suites for $26.80 per month which covers payment for heat, janitor service, water and general maintenance.

Backing up his ideas for this type of development, Joseph Arrigo says:

"It is almost impossible to secure mortgages for building rental apartments. The insurance, mortgage companies, etc., are not interested in supplying money for such purposes. By building co-operative apartments, the builder gets his money back almost immediately through cash payments and mortgages on suites."

Most sales, so far, have been for two-bedroom suites and cash sales are restricted to two per building. Purchase price includes electric refrigerator, electric stove, all electrical fixtures, broadloom carpeting and bamboo drapes as well as 1/21st part of all communal parts of the building, heating system and land.

Purchases are grouped to ensure, as far as possible, the maximum compatibility in each building. Douglas Mackenzie, in charge of sales at Neptune, explained that one block is reserved for people 40 years of age and over who have no children. Another block is for young couples with up to two children.

Sponsors of the project claim:

The upkeep of a co-operative apartment when fully paid up is approximately one third of a house without the responsibilities. It's less than 25% of the cost of renting an equivalent suite. If 15% is paid, the cost is about 40% less than renting. With the minimum down payment, the cost of a co-operative suite in Neptune Apartments is approximately two thirds that of renting an equivalent apartment.

Operation of a co-operative apartment scheme is achieved through the management and this is paid for out of monthly upkeep costs.

Purchasers of suites, through a board of directors appointed by themselves, rule on all questions of future sales, and subrentals.

INTERIOR FURNISHINGS

Growth

Manufacturing plants new to Canada, expansions of existing industry across the nation

Areas, industries are invited to report their progress in this column.

From culverts to grocery bags, the range of industrial expansion in British Columbia romps along at a crackerjack clip.

Major projects recently completed are the $4.5 million paper box and converter products plant by **Crown-Zellerbach Canada Ltd.** at Richmond; the $7.8 million power transmission line by **B. C. Electric Co.** which links Vancouver Island with its 46-mile stretch, nearly a third of it underwater; and the $8.7 million, 58,500 hp hydro-electric station at Seaton Creek also by B. C. Electric.

And under way now are some $36 million worth of projects of which by far the biggest is a $23 million plan of **Inland Natural Gas Co.** to bring natural gas to some 25 interior communities. The company has a contract with **West Coast Transmission Co.** for its gas supply. The area covered stretches from the Peace River district in Northeastern British Columbia through the central part of the province to the Okanagan and West Kootenays.

In Vancouver, **Dominion Bridge Co.** is going ahead with arrangements for the B. C. portion of its national $20 million expansion proposals. The Vancouver share is a $5 million slice to double structural steel fabricating capacity, erect a new office building and double warehousing facilities over a four year period.

At Coquitlam, a new project under way is the $2.5 million plan by **Canadian Potteries Ltd.** for a plant to produce vitreous china sanitary wares, employing about 150 people. And, again in Vancouver, **MacMillan & Bloedel Ltd.** is spending about $500,000 on a plant with capacity to produce 200 million grocery bags annually and is scheduled for completion early next year.

Still another development in Vancouver is that of **Westeel Products Ltd.** which is investing more than $600,000 on a new and larger plant to replace its Granville Island works. Products will include culverts, steel frames and doors.

• • •

Halifax Looks Ahead

On the other side of Canada, Halifax and its adjacent municipalities are studying a $71 million report recently turned in by **Canadian British Engineering Consultants.** That sum is the total of capital expenditures which, it is estimated, will be needed over the next 10 years to provide adequate highways, and water and sewer services for the area developing Halifax metropolitan area. The area takes in the City of Halifax, Town of Dartmouth, and the municipality of the County of Halifax.

The report, for which Canadian British Engineering Consultants was engaged about a year ago by a special committee, lays out a plan of development as groundwork for a system to serve a future population in the area of 400,000. Present population is about 155,000.

These are the basic recommendations:

- Zoning districts around Halifax Harbor and Bedford Basin, allowing development in future only of those areas which could be economically served with essential water and sewer services.
- Expansion of water systems on eastern and western sides of the harbor, including several lakes not now classified as water supply lakes. Estimated cost: $19 million.
- Expansion of sewer system on both sides of the harbor, including main trunks, distribution, disposal or treatment plants. Estimated cost: $20.9 million.
- New highways network for present and future needs. This would include a new highway around Dartmouth and another behind communities along the shores of the North-West Arm and Bedford Basin. Estimated cost: $31.4 million.

Action on the comprehensive, three-volume report will be discussed when provincial and municipal representatives get together shortly.

• • •

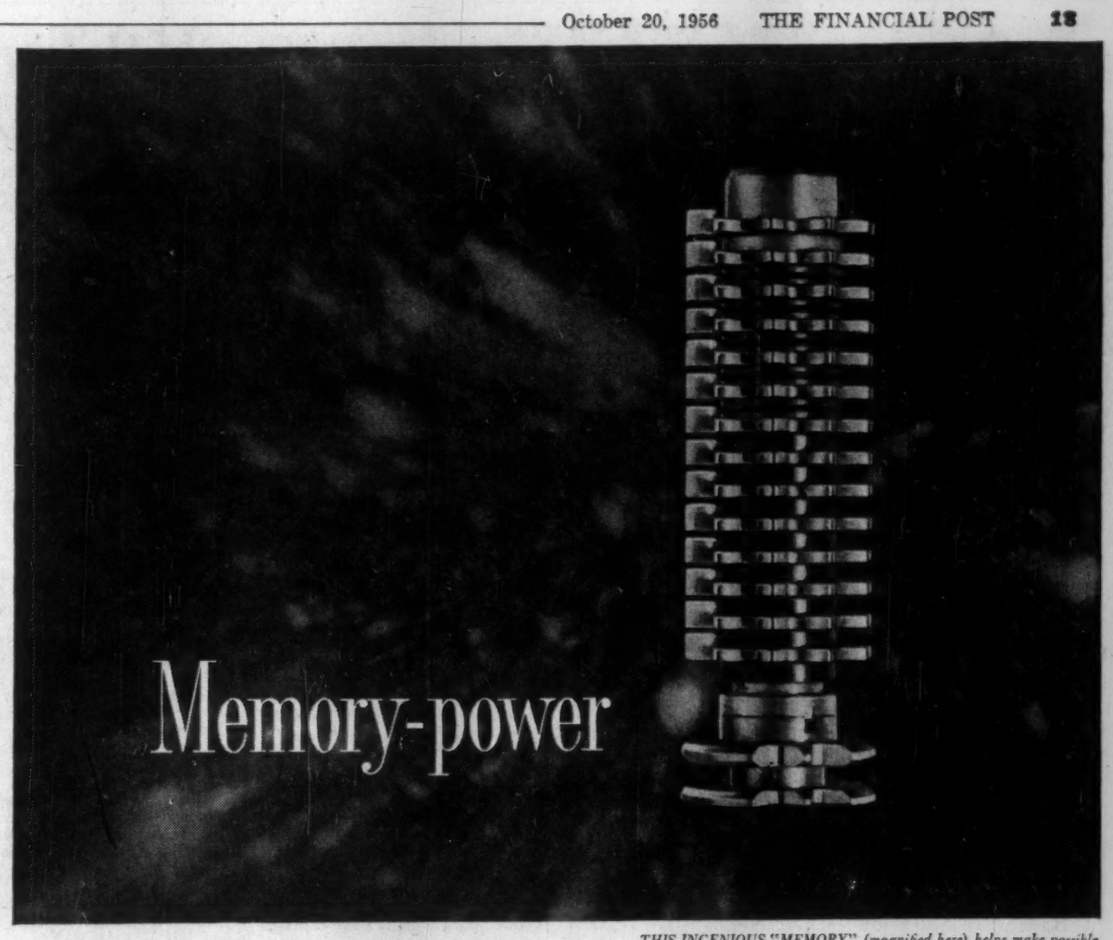
Office Market Grows

Two developments this week pinpoint the remarkable growth in stature and demand of Canada's commercial fields

- **Acme Carbon & Ribbon Co.,** wholly owned subsidiary of **Burroughs Corp.,** Detroit, will start construction before the end of this month of the largest carbon paper and ribbon plant in the country.
- The head of international operations for **Clary Corp.,** Joseph M. Klein, is checking on the expanding market here in connection with **Clary Multiplier of Canada Ltd.**

Acme Ribbon, which claims to be Canada's largest producer of carbon papers, machine ribbons and office machine supplies, markets from coast to coast, and also does extensive export business with South America and South Africa. Now, reports General Manager William J. Clendinning, the 23-year-old company has outgrown its present quarters.

The new plant, due for completion next April in the Golden Mile area of Scarborough, near Toronto, will have 50% more production space than Acme's present plant on Gerrard Street, Toronto. Designed by **John B. Parkin Associates,** Toronto architects, it will be built by **Carroll Contracting Co.,** Toronto. As well as complete production facilities, it will house the company's general offices, marketing headquarters, local sales offices and a cafeteria.



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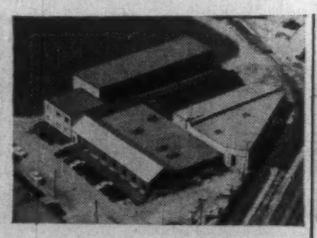

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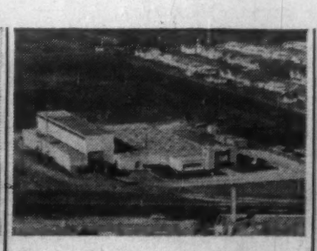

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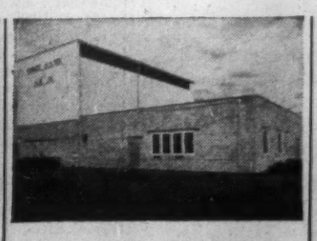

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Infection-Killers Keep Fish, Herald Hike in Seafood Sales

From Our Own Correspondent

VANCOUVER — A revolution is shaping in Canada's multi-million dollar fishing industry. It will put more dollars in the fisherman's pocket, fresher fish on the tables of homes and restaurants; perhaps go a long way toward solving some of the world's eating problems.

It's the use of antibiotics to treat fish and stop the clock on bacterial spoilage which now costs Canadian commercial fishermen and buyers millions of dollars annually.

First gun in the revolution was sounded early in October when the Canadian Government cleared the way for the use of the Acronize method to preserve fish.

The Acronize method of treating fish the moment they are caught has been proven, in years of exhaustive tests, to halt bacterial spoilage up to seven days and sometimes up to 22.

The pioneering research and original discovery was made by Dr. Hugh L. A. Tarr, a quiet, dedicated Vancouver scientist who is director of the Canadian Government's Department of Fisheries in downtown Vancouver.

His discovery is hailed as one of the greatest advances in food preservation since the advent of frozen food and the deep-freeze.

Dr. Tarr discovered that the antibiotic aureomycin, when applied to fish, could stop bacterial spoilage for substantial periods of time.

His pioneering research was taken up by a biochemical team in Ohio which studied the basic causes of meat spoilage.

The preservative, under the trade name Acronize, was finally developed in the New Jersey laboratories of **American Cyanamid Company.**

Poultry, Too

Its use in the preservation of poultry was approved by the U. S. Government last year. The use of the Acronize process has also been approved for beef in the Republic of Colombia. Canada leads the field in allowing its use for fish.

Work is going on continually aimed at extending the Acronize process to other meats.

Canada's fishing industry was valued at about $120 million last year.

That's a lot of money. But the fishermen also lost a great deal of money because fish were spoiled on the way to dockside.

Getting fish to market in good condition is as important as catching them in the first place.

Acronize also allows fishermen to range farther out to sea for longer periods, get bigger catches.

The preserving method used is to add tiny amounts of the golden-colored Acronize powder to chipped ice in which the fish are kept while on board fishing boats and during shipment to distant points.

It's estimated that it costs about $3 a ton to treat the ice with Acronize.

One significant test was made when salmon and halibut caught in the Pacific were treated with Acronize. Another lot caught at the same time was not treated with Acronize.

The two lots were landed at a Washington State fishing port, trucked to Seattle and shipped by regular rail routes to a lab in New Jersey. When they arrived 13 days after being caught, the Acronize-treated fish were firm and sweet, uniform in color. The untreated halibut and salmon packed in ordinary ice contained 300 times more bacteria per gram, smelled highly, were uneatable.

Similar tests were made on catches from Canadian waters, the Atlantic and Gulf of Mexico, as well as in Scotland. All showed the same result.

Dr. Tarr's discovery means a lot to Canadians. It means that fresher fish can now reach the heavily-populated areas of Eastern Canada from the East and West coasts in peak condition.

Freshness Important

And freshness is the key to making fish more attractive to the Canadian housewife, says Margaret Myer, chief home economist for the Department of Fisheries in Ottawa.

"The freshness of a fish is even more important than the proper cooking in the final result to the palate," she says.

"Many consumers, especially those living inland, do not know what really fresh fish tastes like because they once had fish that was not top quality and have stayed away from all fish ever since."

The Canadian fishing industry was quick to see the potential in the process. The huge **B.C. Packers Co.**, largest commercial fishing company in the world, loaned boats, men and equipment to Dr. Tarr and his associates to carry on their research.

In the U. S., American companies were happy to give their facilities to researchers. It was this co-operation between industry and science which helped make the Acronize process possible.

Not Fish-Eaters

Canadian fishing leaders have long been concerned with the fact that Canadians are not big fish eaters. They think this new process will help educate Canadians into becoming more fish-conscious.

They want to narrow the huge gap between the per capita consumption of fish — 13.8 lb. — and that of meat — 146.4 lb.

"The use of an antibiotic in extending the freshness of fish will have a significant effect, particularly in Central Canada, where it should result in the consumption of more fish," says O. C. Young, assistant chairman of the Fisheries Research Board of Canada.

"With the help of an antibiotic, we can bring fresh fish from the East Coast to beyond Toronto, from the West Coast to Winnipeg, instead of just to Edmonton."

Benefits Frozen Fish

Mr. Young said benefits of the new process will be as great for frozen fish as for fish sold fresh, since its use in holding the freshness of fish prior to freezing in the processing plants will ensure a high quality frozen product.

Dr. Tarr claims that Acronize-treated fish can be eaten with complete safety because only tiny quantities of the drug are used in the ice — just a few parts per million.

Tests have shown that treated fish contain so little of the antibiotic after cooking that a person would have to eat about 10 tons of fish in 24 hours in order to get one-fifteenth of an ounce of aureomycin, the amount contained in one therapeutic dose.

The use of the antibiotic can also have a dramatic effect on the world's diet, especially in the poor and backward hot countries where a great percentage of fresh meat and fish spoils.

Asiatic, African and South and Central American governments will be able to use the preservative to treat beef at supervised government packing houses. The animal is first innoculated with preservative then slaughtered.

Government-supervised fishing fleets would be able to range far out to sea to bring in huge catches of treated fish.

The whole process started back in 1944 when Dr. Tarr, a biochemist with two Ph.D's, was working in his laboratory. He reasoned that if wonder drugs could destroy germs causing human sickness, then they could kill bacteria which cause spoilage.

Failures First

But his first experiments with known antibiotics produced only failures. Co-workers told him he was working with a useless procedure.

"But if you get discouraged in research, you'll never succeed," he says.

In May, 1950, his dramatic moment arrived.

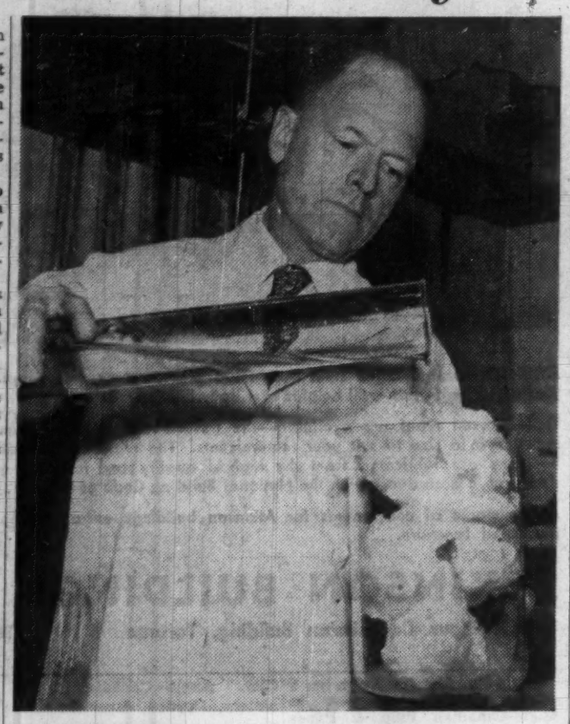
He and his assistants had applied various antibiotics to 15 samples of minced fish, just as he had applied other antibiotics a hundred times before.

After two weeks of standing in a warm temperature, he examined the fish samples. All samples were rotten with the exception of the one treated with antibiotic aureomycin. That sample was fresh, firm and sweet.

"We knew we had the answer," Dr. Tarr said. "The aureomycin fish was as fresh as the day it was caught."

"Fish spoilage is caused by six or seven known types of bacteria," says Dr. Tarr. "But there are thousands of other forms of microbic sea life that could attack a fish after it's landed.

"Aureomycin will not destroy yeast but it is capable of destroying marine bugs. It would appear too much money is being spent to discover new antibiotics and not enough to develop fully the older ones."



DR. HUGH TARR, discoverer of the process to stop the clock on fish spoilage, works in his Department of Fisheries lab in downtown Vancouver. Tarr now is working on a process to stop spoilage of whales —which can be eaten by humans as well as ranch mink and foxes. About 500 whales are taken each summer off Vancouver Island.

St. Lawrence Cement Plant Opens

There is important news for Ontario's $2.2-billion construction industry this month.

The new $27-million cement plant of St. Lawrence Cement Co. at Clarkson, has gone into operation three months ahead of schedule, will be selling products probably before the end of this month. A second kiln is slated to start production early next spring and the company expects to have an additional 1,600 tons of cement a day available for the Ontario market from the beginning of next construction season.

Decision to go ahead with the project at Clarkson was made by the St. Lawrence Cement board on Sept. 5, 1955. Last December, engineering and planning was delayed for about four weeks when it was decided to double the new plant's capacity to three million bbls. a year.

A special feature of the new plant is an electrostatic dust collector, designed to recover some 99% of dust exhausting from the 555-ft. chimney which is claimed to be the highest in the Commonwealth.

St. Lawrence has another major cement plant in Quebec. It has been in production for two years.

Shipments of cement in Ontario last year climbed 7% above 1954 as compared with a 12% rise in shipments across the country. For the first seven months of this year, shipments in Canada were 18% ahead of 1955.

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Chessie rides the waves

Earlier this year, Chesapeake and Ohio and two other major coal-carrying railroads, leading coal producers and exporters and the United Mine Workers joined together to form American Coal Shipping, Inc.—a new $50 million company to assure a stable and continuing movement of American coal for Europe's industrial expansion.

Through its Atlantic port of Newport News, Virginia, C&O currently handles nearly half of America's mounting export of bituminous coal. Almost 20 million tons will move through this port in 1956 and a new $3 million pier addition there will further increase C&O's coal handling capacity.

The import of ores through Newport News has increased to five times what it was only two years ago. A new $8 million bulk cargo pier means that more of the cars which carry coal down to the sea will return loaded with imported ores for America's industry.

But "railroading on water" is not new to Chessie's railroad. C&O's fleet of seven big, fast Trainferries carry trainloads of freight between Ludington, Michigan, and the Wisconsin ports of Milwaukee, Manitowoc and Kewaunee. This year-round Trainferry service across Lake Michigan is a key link in the fast east-west freight service route.

At Toledo, C&O's modern low-level piers handle more coal for movement to Great Lakes ports than any other railroad. Also here, vital iron ore is transferred from lake vessels to railroad cars for inland destinations.

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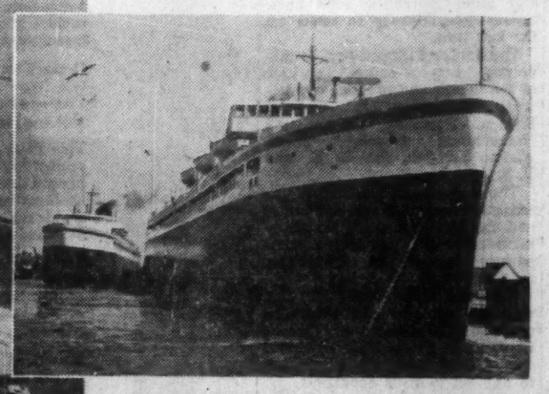

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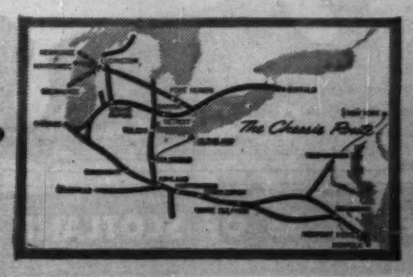

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Anglo-Newfoundland Plans Newsprint Mill in Ontario

MONTREAL (Staff) — Plans of **Anglo-Newfoundland Development Co.** to construct a newsprint mill near Sioux Lookout, Ont., spotlights the long-range planning of the pulp and paper industry.

It is understood the development will involve capital outlay of $50-$60 million and include two fast, wide machines with an annual capacity of about 200,000 tons.

Earlier reports suggested the company was considering building a 100,000- to 200,000-ton mill in the Sioux Lookout area. However, at the high level of construction costs and interest rates, it is not thought that a 100,000-ton mill would be economical.

It is understood an adequate wood supply has been assured, and when the go-ahead is given to the project company will have access to 4,000 to 5,000 sq. miles of timber in the area. This would be sufficient to sustain at least a 200,000 ton operation in perpetuity. Company is expected to buy 150,000 or more cord of wood annually.

President E. M. Little announced that preparatory work will involve some 30 months of planning and engineering, as well as the proper development of the proposed site. The agreement with the Province of Ontario requires the erection of building to commence not later than May 1, 1959, but construction will probably begin sooner.

The company has deposited Government bonds amounting to $250,000 with the Provincial Treasurer to guarantee performance under its agreement.

Sioux Lookout, a town of 3,000 people, is planning to erect 300 new homes for its coming increase in population. Legislation will probably be introduced at the coming session of the Ontario legislature to convert the municipality of Sioux Lookout into an expanded township, which will embrace the site of the new mill.

The mill will be located six and one-half miles north of Sioux Lookout, on Pelican Bay.

The company is reported to be considering the use of trucks to haul newsprint from the projected mill to dockside at the Lakehead. To cope with the expected rise in traffic, the road linking Sioux Lookout and the Trans-Canada highway will be rebuilt and repaved.

If the company started construction in 1959, on the basis of normal newsprint construction programs, it would probably be at least 18 months to two years, or sometime in 1961, before the project was completed.

This is a good indication of how far pulp and paper companies today have to plan in advance. They know that demand for their product in the future will be much greater.

To meet this demand they have to plan for expansion now. They are spurred by need to get good sites, cheap power and ample timber limits before a competitor moves in ahead of them.

Although there are signs that newsprint capacity in North America will exceed demand by 1957 or 1958, the time limit on the Sioux Lookout project will enable the company better to plan new capacity vs. demand.

North American supply and demand should be about in balance by the end of this year.

Anglo-Newfoundland will be in a good position to supply a considerable amount of future consumption. It is understood that company has already contracted to sell some of the anticipated production to publishers. It is usual in the industry to sell at least 50% of anticipated output before going ahead with expansion.

One of the company's neighbors will be **Dryden Paper Co.**, which has a storage site on No. 2 Island at Fort William, and an option on an additional 50 acres.

Anglo-Newfoundland Development Co. operates a newsprint mill at Grand Falls, Nfld., with annual capacity of 230,000 tons. A subsidiary has a 50% interest in an important base metal mine, and another subsidiary operates a bleached sulphite mine in Quebec.

Anglo-Newfoundland also has a substantial share interest in **Anglo-Canadian Pulp & Paper Mills Ltd.**, which manufactures newsprint, unbleached sulphite pulp and paperboard at Quebec City. Anglo-Canadian's subsidiary, Dryden Paper Co., produces kraft pulp, kraft board and paper, with mills at Dryden, Ont., near Sioux Lookout.

While no name has been announced for the Ontario operations, it is considered possible that "Anglo-Ontario" would be chosen as a corporate name.

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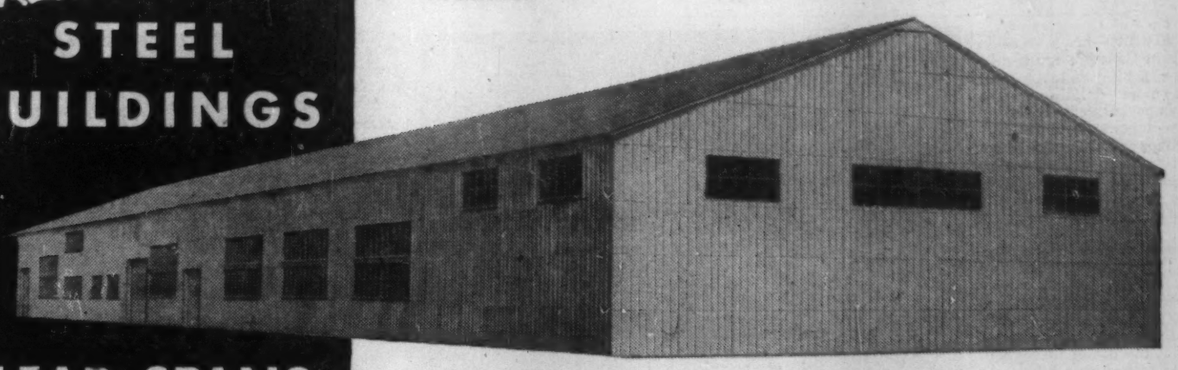

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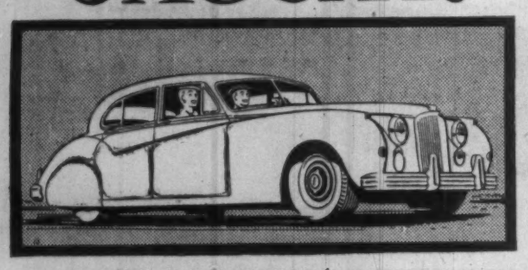

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EMPRESS OF SCOTLAND

Hydrocarbons' Income Lower Outlook Bright

Net income of **Canadian Hydrocarbons Ltd.** for the first six months of 1956 amounted to $387 as compared with $71,687 for same period last year. The 1956 figure was after charging depreciation of $160,000 ($92,022 in the same period last year).

Considering that the period under consideration is not the major selling season and that normally in the industry it takes a number of years to establish new plants on a profitable basis, current progress would appear "satisfactory and reflects the energetic efforts of the companies' staffs," a company letter to shareholders states.

Sales in the first six months of 1956 showed an increase of 67% and totaled $1,850,960 ($1,105,952 in 1956). Peak sales come in the months of September, October, November and December. Current budget forecasts based on operations to date, and foreseeable demands and supplies, indicate net income in 1956, after adjustments for consolidated goodwill arising out of acquisitions made on Sept. 6, should substantially exceed the $203,622 or 35c per common share achieved last year when the company was formed.

Ealy in September the company acquired three additional propane companies: **Sturdie Propane Ltd.**, operating in Alberta, **Hugh Gas Ltd.**, in Saskatchewan, and **Propane Gas Service** in B.C.

BOOKS FOR BUSINESSMEN

ANTI-TRUST LAWS, A Comparative Symposium, edited by W. Friedmann; Carswell Co., Toronto; 644 pp.; $12.

This is the third volume in the University of Toronto Law Faculty's comparative law series. It describes a field of law which was largely ineffective everywhere except in the U. S. until 10 years ago. Since then, Canada and other countries have been trying determinedly to make up for lost time.

The first and largest part of this volume contains critical analyses of the theory and practice of anti-trust legislation in Canada, France, Germany, Japan, the Netherlands, Norway, South Africa, Sweden, the U. K. and U. S.

The second part describes international cartels and combines, and the legal problems that they introduce. The third is a comparative analysis of legislations, by the editor.

Basically a lawyers' book, this volume contains contributions from such economists as Vincent Bladen and Stephan Stykolt, and should be a worthwhile addition to any economist's bookshelf.

MEN IN ARMS by Richard A. Preston, S. F. Wise and H. O. Werner; Burns & MacEachern, Toronto; 376 pp.; $7.50.

A brief history of warfare from the days of ancient Greece up to the present day, and its relationship with western society. There is particular attention to the introduction of new military formations, tactics and weapons and of how these quickly and radically changed warfare and in many cases the whole western world. A military textbook, but highly interesting and easily understood.

The authors, the first two Canadians and the third an American, have all been closely associated with teaching and research in military or naval colleges.

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. . . to Christmas. So any time now you should get your Christmas tree decorations in order. For the tree, there's a new preservative manufactured in the U. S. Said to prevent falling needles, eliminate brown spots, reduce fire hazards and give the tree a green, fresh-cut appearance during Yuletide. Comes in one-oz. bottle that contains sufficient preservative to feed an average 8-ft. tree throughout the festive season.

* * *

Fabric Armor

Fabric treated with new fluorochemical compound developed in the U. S. protects material from grease, oil and water-based stains. Prevents soaking up of liquids, so that most of the substance runs off. The small amount that may become pressed between the fibres of the cloth can be removed with ordinary household solvent such as carbon tetrachloride without producing an unsightly ring, it's said. To be used first with woolens and wool-Dacron cloths in men's slacks and suits, manufacturers claim it will make very little difference to the weight, appearance or cost of the finished product.

* * *

Portable P.A.

Weighing only 24½ lb. there's a portable public address system that has a power output of 10 watts — enough for use in an auditorium or outdoor area. Fully transistorized, the unit can operate for 14 hours on a rechargeable battery.

* * *

Masterful Old Master

Art sophisticates may shudder. But thousands of others who appreciate great works of art yet can't afford to own them, will be able to buy absolutely authentic-looking canvas reproductions of the world's art treasures. Process developed in the U. K. makes possible extremely quick reproduction. Each painting is done by hand by an academy-trained artist, using a patented color process which traces the brush strokes. First reproductions will be shown shortly in Montreal and Toronto.

* * *

Better Zipper

Manufacturers of a new zipper claim that it won't snag. Secret of constant success is a protective covering that prevents the zipper chain from contacting anything but the zipper tape.

* * *

Air-Conditioning Light

New commercial lighting fixture is combination troffer-light and air diffuser. Adaptable to any drop-type ceiling, it looks like a regular fluorescent light fixture, but has concealed diffuser that breathes cool air in the surrounding area. Designed for offices, schools, industrial plants, laboratories, etc., it is expected to cut air conditioning costs, free ceilings of unsightly air vents.

* * *

Leak Finder

Device for detecting tiniest leaks in a large variety of manufactured articles — from barrels to bombs — consists of a control box and "gun" probe mounting. Gives visible and audible signal of any defect.

* * *

Invisible Strength

New type of polythene film for packaging foods, hardware, textiles, toys, etc. not only has high standards of strength, slip, printability and roll formation common to regular polythene film, but offers transparency more than 100 times as great, it's said. Initially to be produced in stock widths of 10 and 12 in. and thicknesses of 1.5 and 2.0 mils.

* * *

Light Distributor

New 1,000-watt mercury lamp has interior phosphor reflector coating on the upper half to direct two thirds of the light downward and one third up. Designed for industrial use, more light will be directed to working areas while some light will still be directed to the ceiling. In addition to improved light distribution, it is said to offer better maintenance and some color improvement (not as much as lamp completely covered with phosphor, but more than bare mercury lamp). Measuring 15 1/16 in. long, lamp has a mogul base, is rated at 53,000 lumens.

* * *

Paper Moisture Measure

Instrument for the measure and/or control of paper moisture during its manufacture has been designed and tested by a Canadian firm. Table model measurement units, and "on-the-machine" scanning models to measure and control sheet moisture are now available. The second of these two units can be combined with a betameter to provide complete moisture and basis weight control of paper machine operation.

* * *

New Catalogue

Canadian Standards Association, Ottawa announces the availability of CSA Standard for Automobile Fire Fighting Apparatus. Covers the minimum requirements and performance of three types of automobile fire fighting apparatus — pumper (triple combination), ladder truck (aerial) and ladder truck and pumper (quadruple combination). New edition includes a number of revisions which have been approved since publication of the second edition.

Cut Through Airline Red Tape IATA Urges World's Nations

MONTREAL (Staff)—Red tape that snarls up the world's airline passengers and operators may soon be sliced.

International Air Transport Association this week asked all international organizations and governments to do something about it. Its method was to remind them of two resolutions passed last month at IATA'S annual meeting in Edinburgh.

IATA lists these reasons for needing a change:

—The airlines have made heavy investment in new types of aircraft which, with smoother operation, will provide substantially faster service to the public.

—These benefits cannot be realized unless new concepts are introduced into governmental procedures for handling passengers and freight.

—That the efforts of government organizations to foster and develop air travel may be impaired if the special clearance or requirements of air transport are not taken into account, and special fees and charges on passengers and cargo are imposed, thus increasing the cost of transportation.

For these reasons IATA urges:

—Member governments act on Annex 9 of the ICAO Chicago Convention, which recommends standards and practices for facilitating handling of passengers and cargo.

—Governments to use all means at their disposal to accelerate handling of passengers and cargo at airports.

—They should report to the Director General of IATA before March, 1957, on what they have done about it.

The Association also points out that surface transportation already enjoys advantages over air transportation with regard to customs, police and health formalities. These amount in practice to a minimum for road and railway transportation but are applied to air travelers in a strict and often irritating way.

These formalities are further aggravated by the imposition of airport embarkation taxes by several countries. They are being considered by others.

All these are frustrating the fast expansion of air transport which operators consider vital if the new generation of planes is to pay its way.

This week, most IATA members were hoping their resolutions might mean the start of a new era of flying ease.

First Private TV Operates In B. C.

British Columbia's first private TV station, CHEK-TV, Victoria, commenced broadcasting this month. The station is operating from a combined studio and transmitter location.

The equipment manufacture, and installation, was handled by **Canadian Westinghouse.** The package station included tower, antenna, transmitter and studio equipment.

Station CHEK will broadcast with a peak visual power of 1,800 watts and aural power of 900 watts. The low output was necessary to conform with CBC coverage regarding single service policy.

The complete installation was performed by the field service section of the electronics division of Westinghouse.

British Alum. Baie Comeau Job on Time

MONTREAL (Staff)—The $150 million project of **British Aluminium Ltd.** at Baie Comeau, Que., is "well up to date" and initial scheduled production is expected by the end of 1957.

That's the report of Chairman Viscount Portal after a visit to the company's development. He also made these points:

—Over 1,000 men are now employed on the site.

—About 30 houses have already been completed for key personnel; a staff house is being built and construction of three large apartment blocks will begin within two weeks. It is planned to have more than 300 houses by the time operations commence next year.

—The new housing development for operating personnel has just been started, roads, sewers and water lines are now being constructed.

—The levelling and preparation of the 100-acre site is almost complete.

Foundations for the rectifier buildings and first pot line section are finished, and steel erection is well under way. The rectifier building will be closed in and sheated within one month and insulation will start in November.

Construction of the wharf is well advanced, and nearly half of the steel piles are already in place. Some 12,000 tons of the largest steel piles ever rolled in the U. K. are being used in construction of the wharf. Dredging operations for the entrance channel are just starting.

Construction office and laboratory buildings are also progressing rapidly.

INDUSTRIAL RELATIONS

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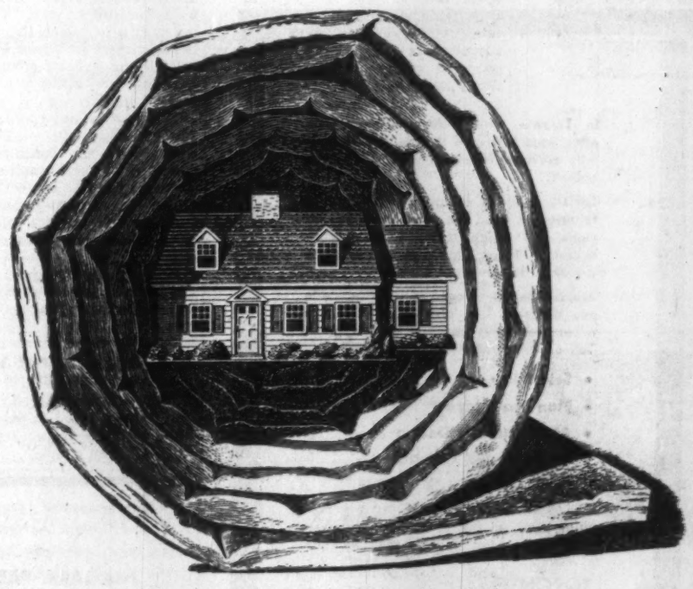

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CARBON PAPER: RCI inorganic chemical pigment colors.

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LEATHER: BECKOSOL alkyd resins (for leather finishes); PLYOPHEN resorcinol-formaldehyde resins, SUPER-BECKACITE pure phenolic resins, SYNTHE-COPAL ester gums (for leather adhesives).

LINOLEUM: BECKOSOL alkyd resins and PENTACITE pentaerythritol resins (for linoleum coatings); RCI inorganic chemical pigment colors.

PAINTS, VARNISHES AND LACQUERS: BECKACITE (1) fumaric, (2) maleic and (3) modified phenolic resins; BECKAMINE urea-formaldehyde resins; BECKOLIN synthetic oils; BECKOPOL modified phenolic resins; BECKOSOL (1) phenolated, (2) phthalic-free, (3) rosin modified, (4) pure drying and (5) pure non-drying alkyd resins; KOPOL processed Congo copals; PENTACITE pentaerythritol resins; STYRESOL styrenated alkyd resins; SUPER-BECKACITE pure phenolic resins; SYNTHE-COPAL ester gums; WALLKYD pure drying alkyd resins (for alkyd flat wall vehicles); WALLPOL vinyl-type copolymer latex emulsions (for latex flat wall coatings); RCI inorganic chemical pigment colors.

PAPER: BECKAMINE urea-formaldehyde resins (for adding wet strength, improving the wet rub of starch-clay coatings, and waterproofing starch adhesives); RCI inorganic chemical pigment colors (for paper coloring); STYRESOL styrenated alkyd resins (for paper coating).

PRINTING INKS: BECKACITE fumaric, maleic and modified phenolic resins; BECKOLIN synthetic oils; BECKOPOL modified phenolic resins; RCI inorganic chemical pigment colors.

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Standards Lab. Changes Name

Laboratories of the Canadian Standards Association known as the Approval Laboratories from now on will be known as the CSA Testing Laboratories.

Currently, with the change in name, the service rendered by the laboratories will be known as CSA Certification Service replacing CSA Approvals Service.

Ottawa Checks on Housing Will Back Hands-Off View

OTTAWA (Staff) — Housing is doing all right — in the Government's view.

Confidence that we shall get as many new houses as the economy can stand has been strengthened by the new starts in September. They recovered significantly from the sharp August drop. And the nine months' total of new starts in 1956 is now less than 5% below the 1955 nine-months' total.

Completions, on the other hand, are about 4% above nine months of last year.

Both starts and completions for 1956 as a whole are still expected to match the totals forecast some months ago, and then accepted as satisfactory. And, most important of all, the carryover into 1957 is expected to match the level at the end of 1954. This will be about 11,000 below the record carryover into 1956. But it will be far higher than any previous year end.

In the Government view a carryover of this size will be quite enough to give the housing industries a good start on the 1957 season. And it is hoped that it will not be big enough to run us into trouble. A very heavy program of industrial construction is bound to be carried over into next spring. If we tried to build too many houses as well, Ottawa thinks we'd be running into serious shortages of labor and materials.

Here are the principal current forecasts on the 1956 program:

New starts: 1956, 125,000; 1955, 138,000; 1954, 113,500.

Completions: 1956, 135,000; 1955, 127,500; 1954, 102,000.

Carryover into 1957: About 69,000; into 1956, 80,000; into 1955, 68,600.

Figures on performance up to the end of September are available only for communities of more than 5,000, so they are not strictly comparable with the above, but here they are:

New starts: Nine months of 1956: 70,800, 4.8% below 1955. September: 8,879, 11.5% below September 1955.

Completions: Nine months: 65,500, 4.1% above 1955. September: 7,720, 7.5% below 1955.

Under construction on September 30: 57,725, 6.8% below 1955.

Leave Well Alone

On the showing of these figures, you can be sure that Ottawa will leave housing well alone. If it had turned down really badly with the onset of fall, the Government would have been anxious about getting an adequate carryover into 1957. There would have been serious thought about trying to stimulate new starts. As it is turning out, the Government will keep its hands off.

Some of the reasons given here for satisfaction with the program as it is include these:

—Total expenditure on new housing in 1956 will come to about $1.5 billion, level with or a little above last year's.

—Again this year, as last year, the number of new houses completed will be far ahead of the number of new families. The rate of family formation has been running at about 90,000, and right now it is more likely to be declining than increasing.

—NHA loans at 5½% dropped by 30% compared with last year up to the end of September. They are now running far lower than that. But normal financing, at regular commercial rates, appears to be filling the gap quite satisfactorily.

—If there had been no credit squeeze, some builders think, we might have built more houses than could be readily sold. As it is, according to the information collected in Ottawa, the stock of new houses remaining unsold is very small — it is described as being just about a normal margin.

—The nine-month totals for Canada even though they cover only places of more than 5,000 people conceal tremendous variations between cities. While Toronto and Montreal are well below last year, Hamilton, Windsor, Calgary, Ottawa-Hull are all well above.

How Cities Compare

Here is the number of new starts in various cities in the January-September period this year compared with last year:

	1956	1955
Halifax	990	955
Moncton	239	139
Montreal	15,389	16,879
Toronto Metro	13,073	14,916
Ottawa-Hull	3,608	2,674
Hamilton	2,675	2,331
London	1,141	1,111
Windsor	1,233	909
Winnipeg	2,946	3,654
Calgary	3,057	2,452
Edmonton	2,364	2,934
Vancouver	6,955	6,691
Victoria	1,057	1,283

New White Motor Layout

White Motor Co. of Canada Ltd. has officially opened a $500,000 Toronto sales and service branch on Dorchester Ave., Etobicoke, a west-Toronto suburb. The building will also house the Canadian headquarters of White Motor.

Both the branch office and the headquarters office were earlier located in Toronto.

The new layout covers an area of 142,000 sq. ft. — 35% more space than the combined space occupied by the branch and headquarters office. It provides used truck lot, customer parking for tractors and trailers, plus extensive repair and maintenance facilities.

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WRONG GUESS
From St. Thomas Times-Journal
Just how wrong you can be is revealed in the statement that promoters were refused a $1,000 loan in 1827 by bankers to start a town at Chicago, on the ground that it would never develop.

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Marketing man desires to join progressive organization interested in applying scientific management techniques. Fifteen years experience in production and development engineering, merchandising, marketing and distribution research. Can provide able direction in the marketing areas of sales management, forecasting, budgets and quotas, measurement of market potentials and market development. Box 73, The Financial Post, Toronto.

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ANNOUNCING

Important appointments in Canadian Industry, Finance, Business and Government

Aluminum Co. of Canada (Montreal) — E. H. Eberts to be assistant vice-president.

Associated Screen News Ltd. (Montreal) — Nick Nicholson laboratory superintendent, replacing T. O. Bailey, returning to atomic energy field; T. M. Abrams, to be Quebec District TV Commercials Sales Manager, also acting as advertising and public relations director; William Conway, assistant lab superintendent; George Ramsey, formerly film inspector, replaces Mr. Conway as 33mm Lab co-ordinator.

Bowater Corp. of North America (Montreal) — Sam Mann, controller, continues as secretary-treasurer.

Canada Packers Ltd. (Toronto) — C. C. Babcock, general provisions manager, replacing G. H. Dickson, recently appointed director marketing.

Canadian Aniline & Extract Co. (Hamilton) — Gordon J. Febr and William C. Farmer, join sales staff in Eastern Quebec including Montreal East and Maritime provinces, and Western Quebec, including Montreal West and Eastern Ontario, respectively.

Canadian Canners Ltd. (Hamilton) — John Foss, advertising manager.

Canadian Chemical & Cellulose Co. (Toronto) — Douglas Keefe, vice-president, textiles, was vice-pres. sales, Canadian Cottons Ltd.

Canadian Highway Safety Conference (Ottawa) — Paul Gormley of Ottawa, assistant to the general manager, with special attention to public relations.

Canadian Petrofina Ltd. (Montreal) — G. B. Longhurst, formerly general manager, marketing, to be vice-pres., marketing; Dr. J. R. Patton, vice-pres. refining.

Canadian Resins and Chemicals Ltd. (Montreal) — Arthur G. Pinard, sales supervisor, resin and chemical products; Edward A. Clout, sales supervisor, granular products; Maurice F. Malone, sales development supervisor, industrial products division.

City of Calgary—Kenneth Ford, industrial commissioner.

Collins Radio Co. of Canada (Toronto) — Walter C. Ward, resident manager, Ottawa office.

Dow Corning Silicones Ltd. (Toronto) — D. C. R. Miller general manager, to be vice-pres., continuing as general manager.

Giant Yellowknife Gold Mines Ltd. (Toronto) — Murray K. Pickard, formerly chief engineer and assistant mine superintendent, to be general manager replacing P. N. Pitcher, resigned; K. C. Grogan, treatment plant superintendent to be mine manager.

Great-West Life Assurance Co. (Winnipeg) — W. Preston Gilbride, Toronto, eastern group manager, in addition to present responsibilities in eastern Canada to assist in direction group insurance operations in Michigan and Northern Ohio; A. S. Boxer, Montreal group supervisor to be regional group manager, assisting in directing group offices, Halifax, Philadelphia and Newark, in addition to supervising operations in Quebec province.

John Labatt Ltd. (London, Ont.) Ontario division — R. F. Lewarne production manager, P. J. Henderson director marketing; L. B. Leeming industrial relations manager, H. E. Cannon comptroller.

Joy Manufacturing Co. (Canada) (Galt, Ont.) — J. A. Drain moves to Pittsburgh as vice-pres. and general manager of new Mining and Construction Division of parent company, Joy Manufacturing Co.; continues as president Canadian operation; D. W. M. Ross, to be vice-pres. and general manager, in active direction, Canadian company; E. R. Edwards, sales manager Quebec province, succeeds Mr. Ross as general sales manager; M. S. Cranston, sales manager Northern Ontario and North Western Quebec, to be assistant general sales manager at Galt.

Massey-Harris-Ferguson Ltd. (Toronto) — R. W. Main, secretary to the executive committee to be secretary of the company, succeeding C. N. Appleton who retires as vice-president and secretary; R. E. Kidder assistant to the executive vice-president, A. A. Thornbrough.

Morrow Screw & Nut Co. (Ingersoll, Ont.) — Don Wallace, sales manager.

National Trust Co. (Toronto) — F. H. Brown, president, White Pass and Yukon Corp., Martin Paper Products Ltd., etc. and F. N. Youngman chairman of board and executive committee of Crown Zellerbach Canada Ltd., to be members Vancouver advisory board.

OPPORTUNITIES

DISPLAY ADVERTISING RATES

$8.40 per col. inch per insertion, (60 cents per agate line, 14 lines constitute one inch). Closing date — Copy must be in Toronto Office by Tuesday a.m. Display advertising in this section payable in advance.

Western Finance Company
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TENDERS

India Supply Mission, Washington, D.C., invites sealed tenders for supply of Airframe Spares of Packet Aircraft.

Tender Set containing detailed specification of the items of Airframe Spares may be obtained from India Supply Mission, 2536 Massachusetts Avenue, N.W., Washington 8, D.C. Tenders are to be submitted by 19th November 1956 to the Director, India Supply Mission, 2536 Massachusetts Avenue, N.W., Washington 8, D.C.

TENDERS

Directorate General of Supplies & Disposals, New Delhi, India invites sealed tenders for supply of single seat Instrument Flying Trainer complete with instructor's Desk and accessories including spares for 2 years.

Tender set containing detailed specification of the above items may be obtained from **India Supply Mission,** 2536 Massachusetts Avenue, N.W., Washington 8, D.C. Tenders are to be submitted by I.S.M., on 6th November 1956, to the Director General of Supplies & Disposals, Shahjahan Road, New Delhi. Price of Tender set is $1.68.

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Would like to discuss proposal with a company having surplus modern manufacturing facilities and in need of those qualities we possess.

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for investigation, layout installation and operation of steam and electric plant and purchase of fuel and power. Prefer employment by consulting engineers or industry on individual projects rather than permanent employment.
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All replies held in strictest confidence.
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ENGINEERING OPPORTUNITY
Excellent opportunity for professional engineer, preferably with knowledge of testing procedures in gas appliance field, to join rapidly expanding organization giving ample scope for development of techniques, in administration of approvals plan.
Apply in writing to:
Canadian Gas Association
6 Hayden Street, Toronto, Ontario
Attention: W. H. Dalton, General Manager

COMPTROLLER
Chartered Accountant required for a responsible position with a well-known group of development companies. Preferably a man with several years' experience in accounting administration. Excellent employee benefits, including pension plan. Please indicate full particulars of education and business experience. All inquiries treated in confidence.
BOX 78, THE FINANCIAL POST, TORONTO

CHARTERED ACCOUNTANT
A young expanding National Organization engaged in specialized construction, requires comptroller for its Eastern Division. This is a new position not previously occupied, and will grow with the organization.
It is preferred that applicants be recent graduates or students writing this year.
Attractive profit sharing plan and other benefits.
Reply in own handwriting giving details of background, and education. State salary expected. Reply to
BOX 36, THE FINANCIAL POST, TORONTO

CHARTERED ACCOUNTANT
A group of companies engaged in the home and commercial construction field in Western Canada requires the services of a chartered accountant having some five or six years post graduate experience. Duties will involve supervision over all accounting at head office and branches, corporate records, finance and related matters. This is a senior position and salary range will be commensurate with duties and responsibilities. Reply in confidence giving full details of experience and qualifications to
BOX 82, THE FINANCIAL POST, TORONTO

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MINE ACCOUNTANTS

Leading Uranium Mining Company requires the services of a Comptroller and first-class Accountant.
Positions require mine accounting experience, ability to develop and organize accounting procedures for a major operation and willingness to locate at the mining site after a preliminary organizational period in the Company's Toronto office.
Future opportunities are excellent. Only well qualified applicants will be considered.
Written replies should state age, education, experience, present salary and references. Chartered Accountants preferred.
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GENERAL SALES MANAGER
REQUIRED

Manufacturer with sales exceeding ten million, supplying a broad range of products to the construction industry, requires a General Sales Manager. This position offers divisional-head status with authority over all seven departments of the marketing division including advertising, sales promotion and export. Factory and head office are in Toronto with a well-established distribution organization from coast to coast.

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BOX 71, THE FINANCIAL POST, TORONTO

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I. A leading, progressive Industrial Development Company with headquarters in Montreal, requires an engineer with a marked analytical mind to work with a technical and financial group responsible for assessing the opportunities of founding new industries in Canada.

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Salary will be fully commensurate.

II. A further vacancy is anticipated with a similar Development Group for a senior, experienced analytical executive, preferably with a Civil Engineering degree.

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All replies will be treated in confidence and acknowledged.

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This can be met in two ways: 1) hire more staff; 2) use modern equipment that increases staff output. The latter is unquestionably the sounder, more business-like approach, and besides, trained office personnel is hard to come by.

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With offices from coast to coast, Remington Rand offers Canada-wide service. Feel free to consult with the one near you without obligation. 83 years' experience is at your disposal—call or write today.

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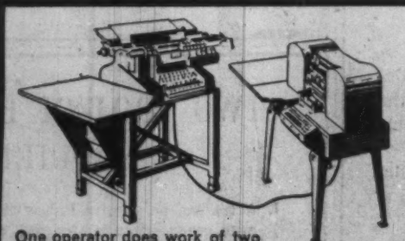

One operator does work of two because one keyboard operates both accounting and card punch machine, giving advantages of accounting machine and punched cards.

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Herald a new dawn of typing speed as the fabulous new Remington Electric Typewriter moves mountains of work. 20% increase in typing production.

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See Remington Rand Punched-Card Accounting

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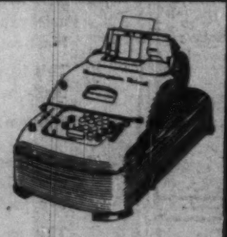

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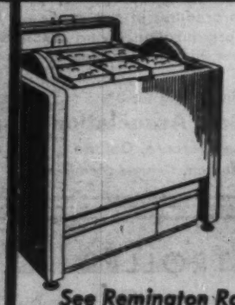

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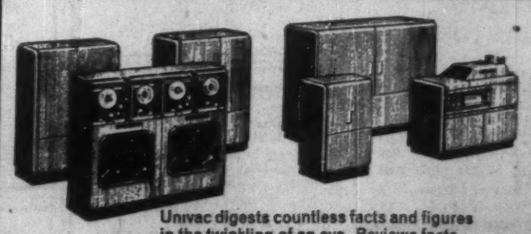

Univac digests countless facts and figures in the twinkling of an eye. Reviews facts—sifts them—gives management speedy answers for enlightened action.

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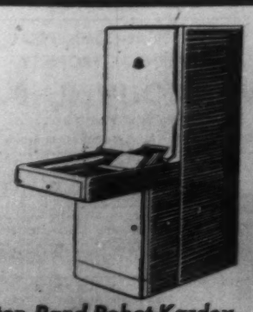

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The Financial Post

Vol. L | Member of Audit Bureau of Circulations | Publication Office: Toronto, October 20, 1956 | Twenty Cents an issue, Six Dollars a Year | No. 42

These Walk In Where Others Pause To Lend

By VINCENT EGAN

"We make a specialty of backing companies—without taking their birthright away from them."

That's Bill Hulton, manager of **Charterhouse Canada Ltd.**, speaking. In a day when the credit squeeze is a prime topic of business conversation, such a statement has a man-bites-dog ring to it.

Hulton, of course, is not playing Santa Claus. Nor are his bosses, the directors of Charterhouse Investment Trust Ltd., back in St. Swithin's Lane, London.

They are in the serious business of corporate financing. Their special field: Companies that have outgrown bank financing, but are not yet big enough to attract the usual investment underwriters.

But the Charterhouse people are modest enough to realize that putting up the money doesn't make them experts in running somebody else's business. With them, it's a point of pride to keep their noses out when they put their money in.

Charterhouse is just one of a handful of overseas investment trusts which have come to Canada within the past few years, to pump new financial blood into the arteries of Canadian industry. Little known to the general public, they are sufficiently well known by small businessmen that they attract a constant stream of established and would-be entrepreneurs to their doors in search of financial aid.

Some suggestions are sound, others overly imaginative.

Mad or not, every proposal gets a hearing. For every dozen outrageous fantasies, there may be one idea with merit. Out of a dozen such ideas there might be one to justify an investment.

Hard-hearted as the new private banking firms may seem to rejected applicants, they are in fact eager to find opportunities to invest their money in Canadian business—with the prospect of a reasonable return, of course. That's how companies like **Charterhouse, United North Atlantic Securities, Triarch Corp., Locana Corp.** and **Canadera Ltd.** justify their existence.

The rapid growth of companies such as these in the past four years or less is largely attributable to these factors:

—Relaxation of U. K. foreign exchange controls, which have allowed British firms to obtain dollars for worthwhile investment in Canada.

—The long experience gained by such companies in this field of investment back home in the U. K. and on the Continent.

—The swift expansion of the Canadian economy which has put pressure on Canadian credit facilities.

—The newcomers' concentration on a specialized field of finance which has hitherto been largely ignored by the conventional suppliers of money.

The Financing Gap

The operators of businesses of a certain size frequently find themselves caught between two fires, neither of which offers them much warmth.

Chartered banks—certainly not the least cautious of lenders — have rules of thumb about the maximum amount of money they will lend, and statutory rules about the length of time for which they will lend it. For many companies, neither the amount nor the terms offered by the banks are enough.

The big investment houses, on the other hand, are not interested unless the amount of money involved is above a certain minimum. Their costs in preparing a public financing issue are relatively fixed, but their return is linked to the size of the issue. Only if the money they raise is reasonably large do they make a profit.

But even if a company needs new financing in sufficient volume to interest the larger investment houses, its owners may shy away from this type of financing. That's because of the risk that they may lose control of thei. operations, or that their control may be seriously diluted, if the public at large is invited to put up part of the capital.

When a business has a successful growth record, and a good chance for the future, the men who have nourished it from the beginning are understandably reluctant to relinquish control. And—the private bankers have learned—most men work harder, more conscientiously, when they are their own bosses.

Here are case histories, drawn from Canadian business, to illustrate the success of the private bankers' formula—a dose of new money, judiciously applied:

• • •

Mechron Engineering Products Ltd.: Spencer Ballantyne and George Askwith, two young design engineers living in Ottawa, set themselves up in business in 1948 selling and installing diesel electric machines, and designing ancillary equipment. The partners started out in that classic birthplace of industry—a garage.

The enterprise was fairly successful from the outset. Ballantyne and Askwith were called upon to supply specialized electrical work for the obvious customers, such as the Department of Defense Production and Bell Telephone. By 1954, Mechron Engineering (the partners had now incorporated) needed more room, more working capital. But like many other companies, it was having trouble in finding the financial backing it needed and could afford.

An English company with which Mechron did business happened to learn of its plight. The English company had been assisted by **Charterhouse Industrial Development Co.** in London 20 years earlier, and it now put Mechron and Charterhouse in touch with each other.

The Charterhouse Canada staff looked over Mechron's situation, liked what and whom they saw, and offered $60,000 financial aid. In return, Charterhouse acquired 25% of Mechron's common stock, plus debentures.

Mechron was able then to take over an old B-A Oil depot at 2437 Kaladar Ave., Ottawa, on which it built an 8,000 sq. ft. plant. Within six months it bid successfully for a contract which would have been out of the question previously—a $2 million order for diesel electric equipment and control panels for use on the Mid-Canada Line.

• • •

Premier Steel Mills Ltd.: Gerry Heffernan, a young metallurgical engineer, born in Edmonton, educated in Toronto, and working in Vancouver, had one ambition: to establish a steel mill in Alberta, which, he felt sure, could support a merchant bar mill. The freight rate to move a ton of steel from Vancouver to Edmonton was $27, from Selkirk, Man., to Edmonton $29.

When Heffernan sought financial aid from all the conventional sources in Canada, however, he was turned down. In 1954, he heard through a friend in England that U.K. and Canadian interests had recently established a Canadian subsidiary, **United North Atlantic Securities Ltd.**, to participate in the financing of Canadian industries. Would they be interested?

Officials of United North Atlantic Securities quickly made a date to meet metallurgist Heffernan, to look over his site, to discuss his plans.

They came, they saw, they concurred.

UNAS agreed to put up a substantial proportion of the money needed to complete the engineering studies, to acquire land near Edmonton, and to start construction. UNAS also placed privately with its shareholders and others a substantial amount of the loan capital required.

What was good enough for UNAS was good enough for others. Soon a major investment house arranged a public issue for the remaining part of $1,450,000 6% 10-year notes.

By the end of 1955, a $2 million, 72,000 sq. ft., 30,000 tons-a-year steel mill—the only one between Winnipeg and Vancouver—was in operation, Gerry Heffernan's dream had come true, and UNAS had done the sort of job it came to Canada to do.

The epilogue: Premier recently made an offering of rights to its shareholders, and its stock is now listed on the Canadian Stock Exchange.

• • •

The Premier Steel case illustrates what an official of UNAS considers to be the key function of his organization—"creative financing." He says:

"U. S. capital is attracted into Canada's raw material industries, preferably large, going concerns. The bigger the company, the more the Americans want it.

"The theory is that if you are going to spend $20,000 to $50,000 investigating a business, you might as well buy a $20-million company as a $1-million company.

"The type of company we are helping is not attractive to these big American companies, and finds it difficult to raise funds domestically.

"Every company had to be small at one time. Who helps today's small companies?"

Premier Steel Mills fit into the UNAS pattern: Steel is important to an expanding economy, no steel was being made in Alberta, potential customers were numerous, and managerial skill was available in the person of Gerry Heffernan.

Money, Money Everywhere

If a Canadian has a new product or a process that will provide employment, pay taxes, improve Canada's foreign exchange position, and make a profit besides, and then seeks financing, it is possible that the first thing he will be told is that chartered banks are not in the business of providing long-term loan capital.

The required money may be had from usurers, but on terms that virtually guarantee that the entrepreneur will be bankrupt within a year.

If the would-be borrower measures up to fairly rigid standards, he (or it) may obtain financing from wealthy families or individuals which specialize in this form of investment. In Montreal certain families whose fortunes are built on commerce or retail trade, and in Toronto men who have become wealthy through mining, are active in the financing of companies.

Another resort is the inventor's friends and relatives. If he can scrape together enough capital from them—which isn't likely—it is just possible that his banker may be more inclined to help.

If, on the other hand, the entrepreneur can present a sound proposition to the financially sophisticated managers of the private banking concerns, he may well get the money he needs and on reasonable commercial terms.

But that's not all he will get. He will be able to draw upon the financial counsel and co-operation of the officials of the private banks—officials who understand finance and economics as few businessmen do, but who recognize and respect the other man's rights and abilities as a manager. Some of the private banks also offer technical and managerial aid where that seems desirable.

The private banking firms have no hard-and-fast rules that they apply to those seeking aid. Each request is treated on its merits.

Charterhouse, for instance, prefers to make an investment of from $100,000 to $300,000, and only to established businesses. It is not necessary that the company be making a profit—only that it has done so in recent years, or is likely to do so in the near future. It prefers private companies because the top executives are usually major shareholders and thus have a considerable stake in the success of their business, but it will also invest in listed stocks and securities if the situation fits its policies.

Between 25% and 40% of the common share capital is typically acquired by Charterhouse, in addition to senior securities—redeemable preferred stock, notes or debentures.

But having acquired stock in small companies, Charterhouse holds on to its interest rather than offering the stock to the public. In this, it is unlike two or three Toronto investment houses which have specialized recently in buying up defunct or distressed companies in Canada and the U. S.

Since its establishment in Canada three years ago, Charterhouse has made a serious study of some 275 propositions. Of these, it has accepted nine. Besides Mechron, the companies assisted include **Seaman Engineering & Drilling Co.**, Calgary (Charterhouse put up about $200,000, acquired 25% ownership, and helped the three Seaman brothers to buy new equipment to expand their contract oil prospecting and drilling operations); **Hardee Farms Ltd.**, a mechanized farming operation and packaging plant at Sherrington, Que.; **Fisher & Burpe Ltd.**, Winnipeg distributors and wholesalers of medical supplies; and **Disher Steel Construction Co.**, Toronto steel fabricators and erectors. In the case of Disher, Charterhouse purchased the substantial minority holding of a shareholder-executive who anticipated succession duty problems; later, it sold its interest to **Canada Iron Foundries**.

Striking a Balance

United North Atlantic Securities is warier than Charterhouse of describing one of its typical investments. Many of the companies, in the view of UNAS, which come to it for aid have been poorly capitalized, and the form of UNAS participation would depend upon what was needed to restore a balanced capital structure.

In any case, UNAS takes a share in the equity of the company in return for the capital is provides. Thus it identifies itself with the long-term interests of the company, guaranteeing its co-owners that UNAS will work for the best interests of the company.

UNAS has participated in the financing of such diversified ventures as **Guelph Plywood Co.**, **United Lands Corp.** (establishing a model townsite near Oakville, Ont.) and **Consolidated Finance Co.** of Vancouver.

The methods of Triarch Corp. are different, since this finance and development company was set up as an investment outlet by a group of London and New York banking houses, including **S. G. Warburg & Co., Herbert Wagg & Co., Glyn, Mills & Co.**, and others in London; **Kuhn, Loeb & Co.** and **Lehman Bros.** in New York, besides a group of prominent Canadian businessmen.

Triarch makes the necessary investigations, and arranges financing of companies through these banking houses, or through its growing Canadian clientele. Triarch itself might not participate in the financing of a company as large as Premier Steel Mills, for instance, although it might arrange financing through a combination of its associated companies.

If an industry appears to offer a good investment opportunity, Triarch might arrange for $400,000 or more to be invested, although even less may be invested if the situation seems promising.

"Any enterprise at all which is well managed," says Triarch's A. G. S. (Tony) Griffin, "is innately financeable."

With its flexible approach, Triarch has arranged financing for companies in such diversified fields as land development, acceptance financing, manufacturing, merchandising, and integrated oil operations.

Its financial participation has taken the form of common stock, preferred stock, debentures and first mortgages. Triarch's principals might acquire either a minority or (unlike Charterhouse) a majority interest in the company concerned.

Triarch specializes, to a greater degree than other private banking firms, in assisting established overseas companies to set up Canadian subsidiaries. Sometimes it will act as agents for the overseas company in acquiring a going Canadian company in the same industry; sometimes it helps the overseas company to choose a site and to recruit management in Canada.

Still another of Triarch's activities is the performance of management functions for a fee. It manages, for example Transoceanic Development Corp., formed by a large number of U.K., European and U.S. banking houses.

Locana Corp. is a Montreal firm whose principal backers are **Hambros Bank Ltd., Harrisons & Crosfield Ltd.**, and **Cable & Wireless (Holdings) Ltd.** of London.

In discussing its activities in Canada, Locana displays a certain British reserve, limiting itself to the general statement that its purposes are to assist British companies wishing to establish or expand their business in Canada, to take part in the development of industry and commerce in Canada, and to provide British and European institutional investors with advice and assistance of all kinds.

Locana was, for example, instrumental in acquiring **Highland Creek Sand & Gravel Ltd.** and **Lockyer & Hughes Ltd.**, of Highland Creek, Ont., for **P. H. Lind & Co.**, London.

Canadera Ltd. was established late in 1952. Its owners include a number of prominent international bankers based in London, Paris, Zurich and New York.

Its stated objective is the development of the natural resources and industries of Canada on its own behalf and on behalf of the group it represents.

Canadera's first acquisition, in 1953, was majority control of Marven's Ltd., a Moncton, N.B., manufacturer of bakery products. In 1954, it participated—with Pacific Finance Corp. of Los Angeles—is the establishment of PF Acceptance Ltd. and PF Credit Ltd. to operate a consumer loan business.

What strings do the private banking firms attach to their assistance?

Each has its own ideas, but typically there would be an agreement that the assisted company would not increase the salaries of its executives unreasonably; that it would not distribute more than half of its earnings; that it would pay a reasonable dividend (i.e., in relation to current average yields) on its common stock; and that it would not increase its long-term debt without consulting the private bank.

Charterhouse shuns control, but other private banks feel that it is permissible, or sometimes necessary, for them to hold a controlling interest in the companies in which they are financially involved.

The private banks . . .

$

Charterhouse Canada Ltd., Toronto

United North Atlantic Securities Ltd., Montreal

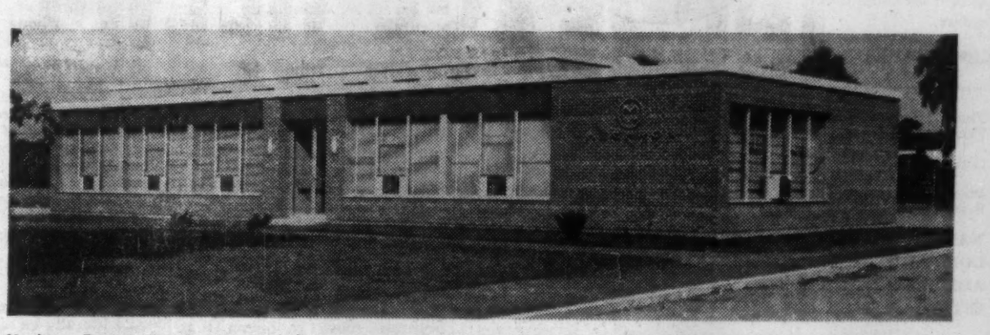
Triarch Corp., Toronto

Locana Corp., Montreal

Canadera Ltd., Montreal

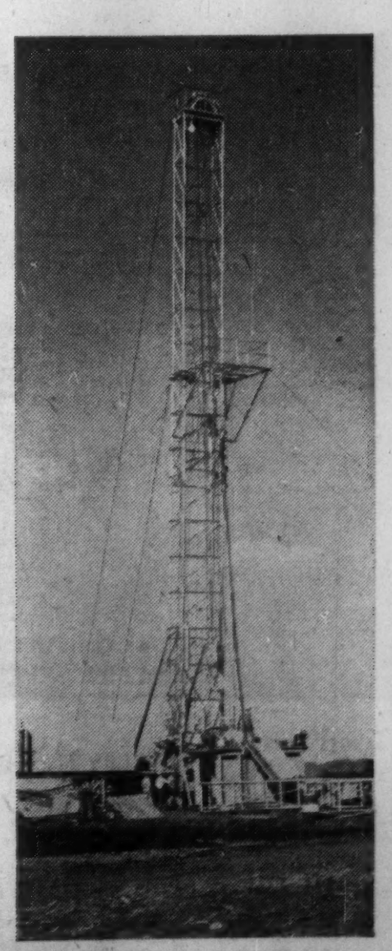
These are a new type of investment house in Canada. They came here with two great assets: a pipeline to big capital overseas, and the foresight to put up money for promising young industries scorned by the more conventional lenders. Their vision has brought them a good return and . . .

Medium-sized companies across Canada have been able to grow, to provide a needed service or product, to create new jobs. These companies still run their own show, too. The private bankers will advise, but don't meddle with management.

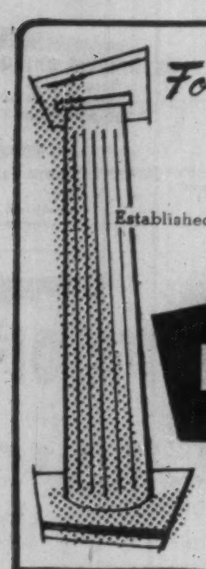


Mechron Engineering Products Ltd. began as a two-man enterprise in an Ottawa garage eight years ago. As it prospered, it needed new money to grow on. It found the financing it needed at Charterhouse Canada Ltd.

The only steel mill between Winnipeg and Vancouver was built last year at Edmonton by Gerry Heffernan's Premier Steel Mills Ltd. United North Atlantic Securities Ltd. put up much of the money to get it started, helped raise more from other sources.



Calgary's three Seaman brothers, all engineers, met Charterhouse through their local bank. With $185,000 provided by Charterhouse, the Seamans bought two new drill rigs to expand their contract oil prospecting and drilling service.



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Businessman's Guide to Candidates

In this U.S. election year, the U.S. Chamber of Commerce has come out with a nine-point yardstick for measuring the attitudes and aptitudes of office-seekers. Here it is:

(1) Does the candidate come offering bread and circuses? (The citizen should recall that history teaches that in those societies where circus tickets are free, the citizen's diet consists of black bread for breakfast, black bread for lunch, and black bread for dinner with few potatoes and no meat.)

(2) Is the candidate a devotee of the Devil Theory of Economics —that is, does he think poverty can be abolished if only the government can identify the poverty devil and slay him? (This type of candidate's program may be reduced to simple terms: if it moves, control it; if you cannot control it, tax it; if you cannot tax it, subsidize it.)

(3) Does the candidate really believe in and understand the Declaration of Independence? (The Declaration guaranteed the right to pursue happiness; it did not define the method of pursuit. Even more important, the Declaration did not define happiness.) Does the candidate appreciate that **Liberty** makes **Life** significant and provides the environment in which **Happiness** may be pursued?

(4) Does the candidate understand that Happiness is both spiritual and physical? (Is he really committed to freedom of the individual?)

(5) Does the candidate understand that physical wellbeing — or the standard of living — is higher in this country than anywhere else in the world, and has not reached this level through sheer accident?

(6) Does the candidate realize that the free market economy, which has been responsible for the tremendous productivity of America, is a profit and loss system? Does he have the courage to tell a constituent who has made a mistake that the government is not going to bail him out?

(7) Does the candidate understand that motive power in the free market economy involves both the carrot and the stick — the hope of reward and the fear of failure? (And does he understand that carrots are an annual crop which must be planted and replanted and that hence it is essential to preserve carrot seeds from one season for the next?)

(8) Does the candidate believe that the economy should be run by over-all forecasts, plans, and blueprints, instead of the free decisions of individuals?

(9) How is the candidate's thyroid gland functioning? Is it overly active or is he physically able to realize that the art of statesmanship in certain circumstances consists of doing nothing at all?

ANNOUNCEMENT

JOHN HUBERMAN | J. D. McCARTHY | G. H. TULLIDGE

Mr. John Bene, President of Western Plywood Company, Limited, Vancouver, announces the appointment of three vice-presidents. Mr. John Huberman becomes vice-president in charge of Industrial Relations. Mr. J. D. McCarthy, vice-president in charge of Production. Mr. G. H. Tullidge, vice-president in charge of Sales. All three have been key executives with the company for the last decade. These appointments are in keeping with Western Plywood's policy of promoting within the company's organization.

Taxes Block Ownership Shift, Hit Owners When Assets Sold

Tax laws are hindering changes in company ownership, says John Langdon, partner in McLeod, Young, Weir & Co., Toronto investment dealers.

Here is a digest of Mr. Langdon's comments on this situation as made in the October issue of The Canadian Chartered Accountant.

By JOHN LANGDON

Price is not always the deciding factor in the sale or purchase of a business. There are also these primary considerations:

- How does the seller stand taxwise after the deal is completed?
- What has happened to the buyer's tax position?

Buy shares and you assume the tax liability of former owners. Buying assets is usually more favorable. But whether stock or assets, buyer and seller have a common problem:

Can the deal be done on a tax basis favorable to both?

Until recently, when all intercorporate dividends were free of tax except on winding up, it was often attractive for one company to acquire another — especially if it was privately owned.

But the relatively new feature of the Income Tax Act, designated surplus, makes it definitely less attractive for one company to acquire another. And the act makes it more attractive for a non-resident buyer than for a resident buyer to swing the deal.

This and many other factors are making it more and more difficult to effect a change in corporate ownership without attracting a tax. Broadly speaking, sale of a private company presents more problems than that of a publicly owned company because tax incidence in a family-owned organization constitutes a major issue.

Succession duties and income taxes have brought many Canadian businessmen to realize that owning a business is often a luxury they can ill afford. This has led to a more than normal turnover in the ownership of private businesses.

But only a few owners are fully aware of the vulnerability of their position. The majority, seemingly, has no clear-cut plan of how to protect businesses from enforced sale at sacrifice prices in order to pay succession duties.

The record of the average owner of a private business follows a more or less set pattern.

He formed his company with a modest capital 20 or 30 years ago. He has taken a good living out of it, but most of the retained earnings in the way of depreciation and surplus profits have been plowed back in the form of plant, machinery, inventory and accounts receivable. Earned surplus, now of a considerable size, cannot be taken out without attracting substantial taxes.

And if he should die when the principal asset in his estate is his private company, his heirs would literally be at the mercy of the taxing authorities as to what value for succession duty purposes will be placed on his holdings.

To help smooth out problems such as those in which the owner has plowed back earnings for expansion, the Federal Government created the Ives Commission.

On its recommendation, the owner of a private business was permitted to capitalize the earned surplus on payment of a special tax. Later this was broadened. While this gave a measure of relief, the imposition of other restrictions in the past several years has not made the lot of private ownership any easier.

Capitalization of earned surplus has, in many cases, failed to put tax-free cash in the hands of the owner, although the ability to capitalize earned surplus without attracting a confiscatory income tax unquestionably has been helpful.

Faced with a realization of the problem, a large number of private businesses have changed hands in the last few years. Such sales have not been easy to effect.

Most owners have tried for a price far beyond the most optimistic figure they would set down for succession duty purposes; and they have sought to sell stock.

Buyers have their own ideas as to value. And in nearly every case buyers prefer to buy fixed assets so that they can depreciate from a level much above book value. If stock is bought, buyers must take into consideration, among other things, existing and potential tax liabilities.

But the real bugbear of a business owner is not so much succession duties as his position under the Income Tax Act. Under its provisions, the positions of the vendor and the purchaser are diametrically opposed. Should one or the other be ignorant or ill-advised, taxes can turn out to be so severe that they amount to confiscation.

It is advantageous for the purchaser to buy assets because he is permitted capital cost allowance on the price he has paid for the properties and other liabilities relating to the vendor company.

But when the vendor sells assets, he is subject to recapture of depreciation. He is left with the problem of disposing of the undistributed income on hand and, unless willing to proceed slowly and through many devious steps, could find this extremely expensive because of progressive tax rates.

If shares rather than assets are sold, the vendor can obtain his profit, often attributable to a policy of retaining earnings, as a capital gain and he is free of all tax liabilities.

On the other hand the purchaser, although paying a substantial premium over the book value because of the effect of inflation on the value of the property, cannot amortize that premium as a cost deductible for tax purposes over the life of the property.

Purchaser's Dilemma

The purchaser is also faced with the designated surplus, a distribution of which costs him a tax of 15% if he is a U.S. or U.K. parent, plus, where applicable, withholding taxes of 15% or 5%; a tax of 20% if an investment company; and the extremely arbitrary rate of 47% if a resident corporation.

Until recently, when a company acquired a company through purchase of stock, it was possible for the purchaser to take out the cash accumulation of the acquired subsidiary in the form of tax-free dividends and use the proceeds to pay in part for the shares purchased. However, today such an arrangement does attract tax.

Again, where a company finds it necessary to issue bonds to provide funds for the purchase of another company's shares, interest on the bonds is disallowed as an item of expense. Formerly the subsidiary could be wound up and interest on the bond issue be thereafter allowed—but designated surplus now prevents this move.

These conditions make it less attractive for one company to acquire another.

Those responsible for changes in the Income Tax Act and its application have been concerned with collecting a tax on earned surplus when a company changes hands—rather than the effect of such a change in strenghtening the economy.

Our economy cannot remain static and tax authorities should aid, not hinder, changes in corporate ownership, which by broadening the base of operations will lead to improved efficiency and earnings.

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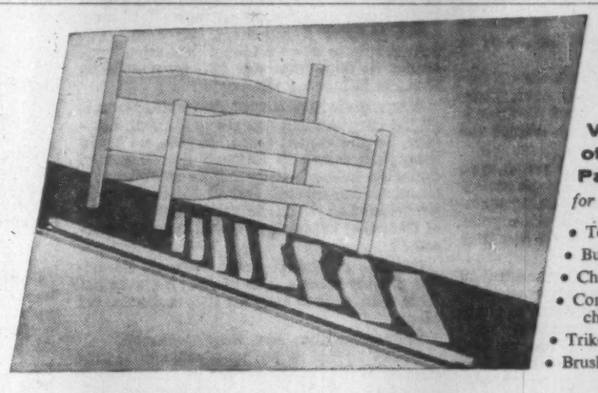

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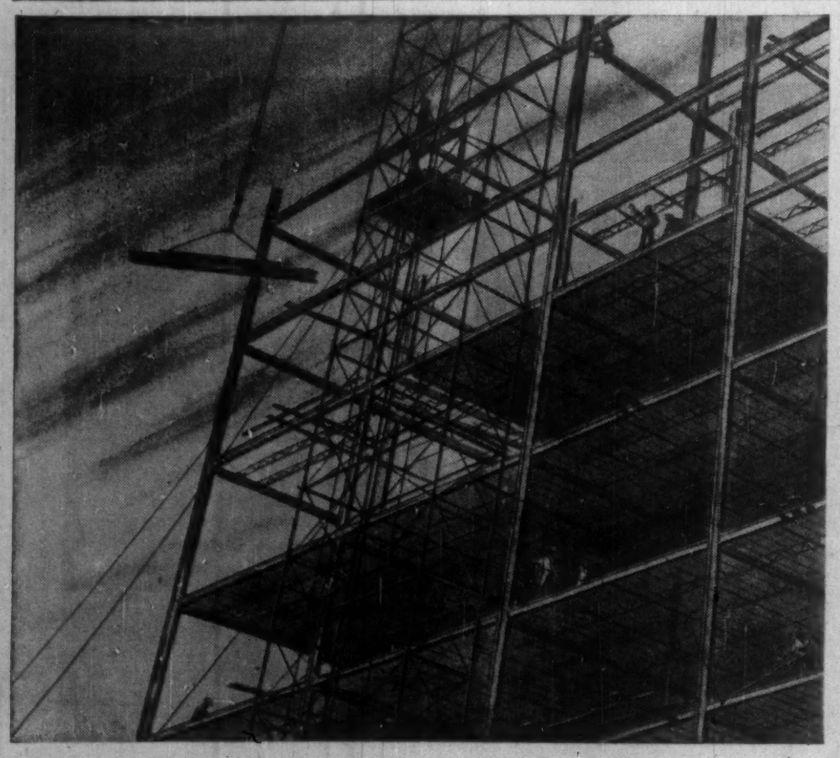

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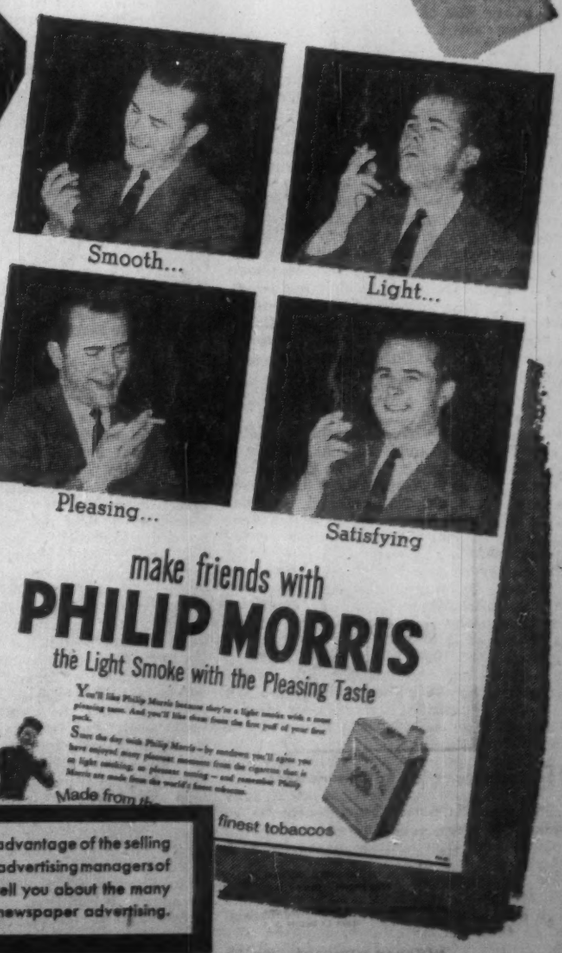

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Toronto Art Sale Pays Off

The Art Gallery of Toronto is conducting an increasingly successful campaign to encourage Canadians — especially young Canadians — to buy Canadian art.

The campaign takes the form of an Annual Sale of Contemporary Canadian Art at which "everyone who is anyone" exhibits paintings or sculpture for sale.

The event is run by the Women's Committee of the gallery and on this page are reproduced three pictures from this year's sale, which runs Oct. 26 to Nov. 5.

"To keep the young person who is interested in art coming to the sales and buying paintings, the limit which an artist may charge is $200," says Margaret Machell, education secretary of the gallery.

"Thus, at every sale we sell 60 or 70 paintings at an average price of $70 to $100.

"If we didn't set the limit, we'd probably sell a small number of paintings at a high price, benefiting a few artists who are already well known, and a few moneyed collectors who are already deeply interested in art."

Who exhibits at the sales? They were started in 1947 and in the nine years to 1955, 160 artists and sculptors exhibited, most of them many times. They make up a "Who's Who" of Canadian art.

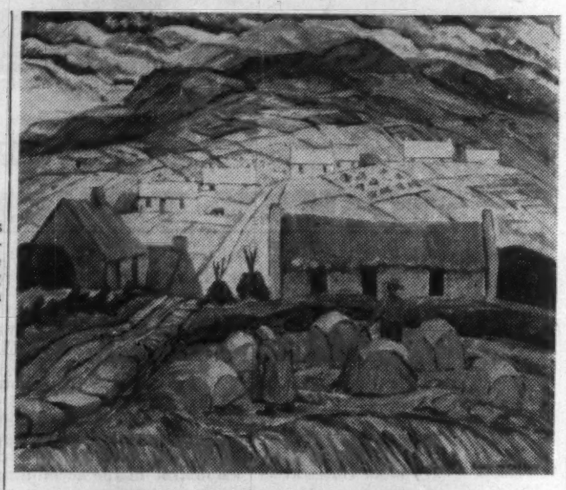
At any given exhibition, for instance, there's likely to be at least three of the famous "Group of Seven" represented — Arthur Lismer, F. H. Varley and A. Y. Jackson, with possibly Lawren Harris as well. Painters Carl Schaefer, Charles Comfort, Goodridge Roberts, R. York Wilson and sculptor Emanuel Hahn are constant exhibitors.

And there are dozens of other well known names and scores not so well known.

The method of bidding is unusual. The sale lasts a week and the prices of the paintings are marked. If you're willing to pay a given price, you put in your name for the painting. If you're the only one who does so, you get it at the stated price. But if there's more than one bid — i.e. name — put in, the purchaser is decided by drawing the bids from a hat.

The well-known name A. Y. Jackson may attract 20 bids for each picture he submits. Last year, he submitted three, two at $65 and one at $120. There was no question of the demand being allowed to drive the price up; he set the price and the lucky three were drawn from among 40 or 50 persons who wanted to buy.

The sale is becoming an increasingly popular event. However, despite an increasing attendance, prices are not going up too quickly. Average sale price started off at about $60 in 1947, in the last five years has run around $80.



IRISH CROFTS, by Doris McCarthy

HEAD, by R. Blackstad

BOOKS FOR BUSINESSMEN

THE BRITISH COMMONWEALTH by Frank H. Underhill; Burns & MacEachern, Toronto; 127 pp.; $2.50.

There have been few social transformations more remarkable than that which has brought into being the present British Commonwealth. In this small, erudite and even sprightly volume, Prof. Underhill examines the origins of the Commonwealth and the nature of the bonds which hold together an association of white and non-white nations of widely differing traditions and economic needs.

It consists of three chapters. The first deals with the Victorian Empire. The second takes us through the First World War and the emergence of the "First Commonwealth" of Canada, Australia, New Zealand, South Africa, Newfoundland and the Irish Free State.

The last deals with the "Second Commonwealth" which is emerging after the Second World War, which already includes three non-white communities—India, Pakistan and Ceylon — and which seems likely to include other such in the near future.

The chapters were originally presented as lectures at the Duke University Commonwealth Studies Centre, Durham, N.C. Taken together, they constitute an admirable introduction to a complex subject.

MARKET COMMENT

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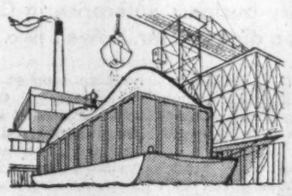

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Newfoundland Passenger Service Extended Until January

From Our Own Correspondent

ST. JOHN'S — Extension of daily passenger train service in Newfoundland until Jan. 5 for the first time in history, along with other transportation improvements on both the island and mainland, has been announced by E. J. Cooke, manager of the Newfoundland district, **Canadian National Railways.**

The steps, aimed at improving fall and winter CNR services, were decided upon following a report made by a special committee appointed by the CNR to study Newfoundland's transportation needs.

Daily train service in Newfoundland usually terminated at the beginning of October. This new extension should help businessmen.

*

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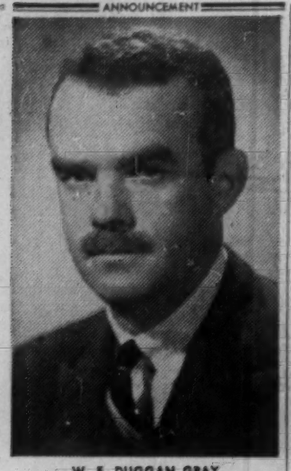
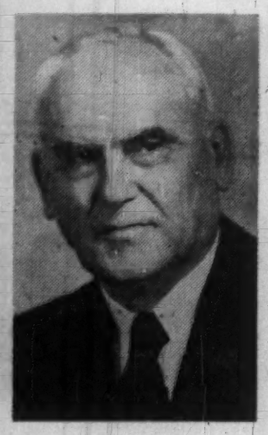


W. E. DUGGAN GRAY

The appointment of W. E. Duggan Gray as director of pulp sales, Columbia Cellulose Company, Limited has been announced by M. W. Mackenzie, president.

Mr. Gray is a graduate of McGill University (B. Com.). From 1941 to 1945 he served in the Canadian Army in Europe. In 1948 he joined Consolidated Paper Sales Limited where he was engaged in the sale of newsprint paper in various parts of Canada and the United States.

Coming to Columbia Cellulose in 1954, Mr. Gray has acted as pulp sales representative. He will continue to be located at the sales office of the company, 2035 Guy Street, Montreal.



C. D. HOWE

Mr. Howe Rang a Bell

Hon. C. D. Howe brought Canada's viewpoint to the U. S. this week. That viewpoint caught many U. S. businessmen by surprise.

Newsmen's questions rang with a brand-new interest:

"How long have Canadians been worried about this?"

"Is this a threat? Will Canada crack down with legislation?"

"Is anti-American feeling growing?"

For all the furor in Canada on the subject of U. S. capital inflow, very little had penetrated very far beyond the border into U. S. business thinking.

The question of "absentee ownership" is a bitter one in many parts of the U. S. Mr. Howe's Middle West bombshells sounded long and loud throughout the "big neighbor."

Treat Us as Canadians, Howe Thumps U.S. Table

"Don't take Canada for-granted."

This was the advice given U. S. businessmen this week in two forthright speeches by Canadian Trade Minister C. D. Howe.

In Chicago, and again in Milwaukee the following night, Mr. Howe pounded home the lesson that Americans doing business in Canada — whether as owners of Canadian enterprises, or as exporters selling to Canadians —should "treat Canadians as people with as much pride in their country as you have in the United States."

Mr. Howe made specific suggestions to U. S. firms operating in Canada.

"If American businessmen treat branch plants in Canada as though they were located in the U. S.," he warned, "this is not likely to be the most successful method of conducting a subsidiary business enterprise in Canada."

Here is a digest of Mr. Howe's two speeches.

By Rt. Hon. C. D. HOWE

I have a word of advice to those who plan to establish branch plants in Canada or who are already operating them.

Remember that these branch plants are in Canada, not in a state of the Union.

They may be closer than branch plants in California or New Mexico but they are still in a different country.

We are just as pro-Canadian as you are pro-American.

We believe in the Canadian way of life, just as you believe in the American way of life.

You will be more successful in doing business in Canada, therefore, if you Canadianize your branch plant operations as far as possible.

To be specific, I suggest that you give Canadians a chance to buy stock in your Canadian companies, that you give Canadians, when they are qualified, a chance to manage your Canadian operations, and that you publish the financial results of your Canadian operations.

Many U. S. companies already operate their Canadian plants on these principles with marked success. They have given Canadians both an interest and a stake in the success of their operations, which I suggest is good business for all concerned.

You may not accept these suggestions; you may not agree with them. You may have better methods of achieving the same result. I wish you to know, however, that they have one purpose and one purpose only, namely to underpin the friendly and harmonious economic relations that now exist between Canada and the United States.

In many countries, of course, there are rigid laws applying to foreign-controlled companies, requiring them, for example, to give local inhabitants a share in the enterprise and requiring them to employ a minimum proportion of local labor and so forth.

Not in Canada

There are no such laws in Canada. I hope there never will be. I believe that those who are prepared to share with Canadians in the risks of developing our country should be as free as Canadians themselves in deciding how to conduct their enterprise.

Nevertheless, anyone who does business in Canada should reckon with the pride, and the legitimate pride, of Canadians in their country. In other words, they should reckon with the normal feeling of nationalism which is present in Canada, just as it is in the U. S.

I make bold, therefore, to offer three suggestions for the consideration of U. S. corporations establishing branch plants in Canada or searching for and developing Canadian natural resources:

- Provide opportunities for financial participation by Canadians as minority shareholders in the equities of such corporations operating in Canada.
- Provide greater opportunities for advancement in U. S.-controlled corporations for Canadians technically competent to hold executive and professional positions.
- Provide more and regular information about the operations of such corporations in Canada.

I am pleased to say that an increasing number of American companies are now giving Canadians an opportunity to participate in the equity holdings of Canadian-operated enterprises. This is an encouraging trend.

I was told that Canadian taxation discouraged Canadian participation in Canadian subsidiaries. If it did, that particular obstacle has been removed, at least insofar as Canadian law is concerned.

Undoubtedly, there are other difficulties, difficulties about exchange of research between parent and partially owned subsidiaries, difficulties of control of subsidiaries with minority shareholders.

That these are very real difficulties, I would be the first to admit. I ask only that they be weighed in the balance against the advantages in terms of goodwill of giving Canadians a sense of identity with the U. S.-controlled enterprises.

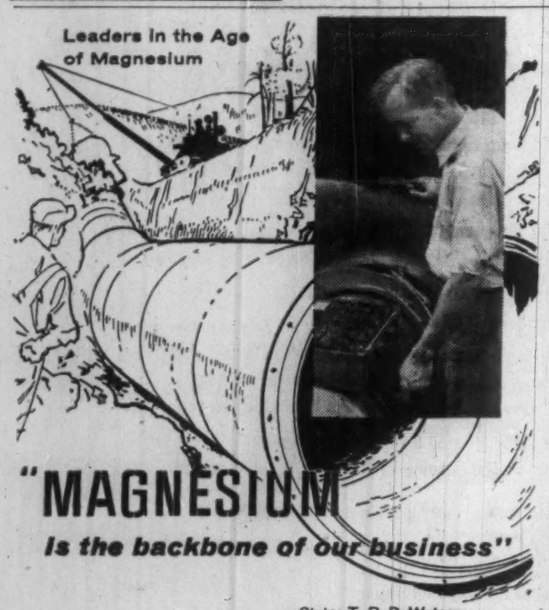
My second suggestion is that Canadians should be given greater opportunities for advancement in subsidiary enterprise controlled by U. S. parents.

I am pleased to report that more and more U. S. corporations operating in Canada are hiring Canadians for responsible positions, when well-qualified people can be found, and that young Canadians are being advanced as rapidly as their ability and experience will warrant. Responsible Canadians are being invited to sit on boards of directors. If this trend continues, there will be little for Canadians to complain about.

My third suggestion is that U. S. corporations should report the results of operations of their subsidiaries in Canada.

As you are aware, the SEC requires regular reporting by all the large corporations in the U. S.

(Continued on page 29)



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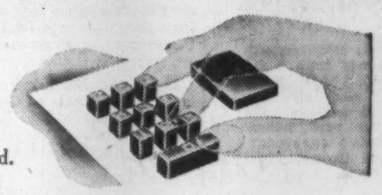

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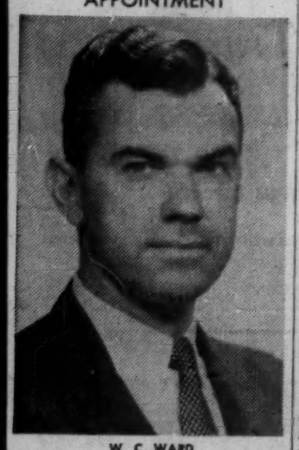

W. C. WARD

Collins Radio Company of Canada Ltd. announces the appointment of Walter C. Ward as Resident Manager, Ottawa office.

Mr. Ward came to Collins from Measurements Engineering Ltd. with whom he has been associated since 1945 as Vice-President and Treasurer. Prior to this, he was with S. F. Bowser Company Ltd. and Research Enterprises Ltd.

Mr. Ward is a graduate of the University of Toronto in Electrical Engineering.

Canadians Proud, Too, U.S. Businessmen Told

(Continued from page 28)

We do not have similar regulations in Canada.

Nevertheless, the Canadian public is interested in knowing how these large Canadian corporations are getting on in Canada. Since many of our large corporations are U. S.-controlled, the demand for the release of such information at regular intervals, say in the form of annual reports, has been increasing.

Export Policies

Branch plants are usually established to do business in the area they serve. But I ask you again to bear in mind that a branch plant in Canada is not the same thing as a branch plant in California or Louisiana. A Canadian branch plant is situated in a country that depends for its very existence upon international trade.

Too often our trade representatives abroad turn up export opportunities for a subsidiary company operating in Canada only to find that the United States parent does not permit the export business to be done from the Canadian plant. Mind you, we do not object to doing occasional export promotion for United States corporations, but you will agree that it is rather difficult to justify the expense to the Canadian taxpayer!

Once again I recognize that there are problems. But I do plead for a careful re-examination of export policies affecting Canadian branch plants. Sometimes, too, Canada has an advantage in duty in supplying goods to countries of the British Commonwealth. I am not suggesting that U. S. corporations should act contrary to their interests. I am suggesting that they may be overlooking a good bet by not allowing their Canadian plants to take on more export business.

The Trade Deficit

Consider, for a moment, trade between Canada and the U. S. Canada is the best customer of the U. S. The United States is the best customer of Canada. Trade between our two countries is greater than between any other two countries, amounting last year to $6 billion.

But, too often, or so it seems to us in Canada, Americans take it all for granted. They take it for granted, for example, that Canada will continue to buy every year a billion dollars more from the U. S. than the U. S. buys from Canada. Americans apparently take it for granted that they will continue to be able to bring raw materials from Canada while placing high tariffs against imports of Canadian manufactures and threatening still further restrictions.

I am not saying that Canada is about to retaliate against the United States by raising barriers to imports from this country. I belong to a government that has moved steadily in the direction of freer trade, which we believe to be in the Canadian interest, and in the interests of a peaceful world. Nor do I overlook the progress that has been made by the United States in the same direction in recent years.

It is just that I am convinced that Americans who sell goods to Canada and appreciate the value of the Canadian market would do well to remind themselves more often that Canada is a separate nation, not a state of the Union, a nation which in the long run can import only as much as it exports.

Need for Capital

At the end of 1955, U. S. investments in Canada were valued at $10.3 billion, a good deal of it concentrated in a few industries, principally oil and gas, mining, automobiles and the electrical industry, but large amounts also invested throughout our industrial structure.

Some of this is borrowed money; some represents minority stock holdings in Canadian companies; a great deal of it represents investment in wholly owned subsidiaries in Canada, in other words, in Canadian branch plants. All of it is welcome in Canada. There is in Canada, and I feel confident there will continue to be, no discrimination against outside capital. I hope that United States capital and enterprise will continue to be freely available to us. We need it. 1956 is the biggest capital investment year in our history. **1957 promises to be as big, if not bigger.**

It is well understood in Canada that to put obstacles in the way of capital imports would involve a cut-back in the Canadian rate of development. This is so partly because our need for capital exceeds our rate of savings, and partly because of the Canadian pattern of investment.

Canadians, individuals and corporations, are saving a higher proportion of their incomes than Americans. But even so, they are not saving enough to finance the current rate of capital investment, which is quite fantastic. The face of Canada is literally being transformed.

Since Canada is the freest of free countries and there are no obstacles to capital movements, inward or outward, some Canadians have chosen to invest abroad, as well as at home. It may come as a surprise to you to learn that, on a per capita basis, Canadians have invested more in the United States than Americans in Canada. The proportion in favor of Canadians is two to one.

We are, in fact, your most important source of outside capital. The result is that Canada has recently depended upon outside capital for about 25% of her domestic requirements.

The Seaway

When I think of how Americans and Canadians can work together as citizens of separate countries, living side by side, each respecting the legitimate interests of the other, I think immediately of the St. Lawrence Seaway which is of such vital interest to the City of Milwaukee. For many, many years Canada tried in vain to get the agreement of the United States to proceed with that great project. Finally, Canadian patience was exhausted. If the United States was not prepared to join in an international navigation project, Canada stood ready to go it alone. Fortunately, that did not become necessary.

Thanks to the foresight and perseverance shown by the authorities, Milwaukee is in a unique position to reap the full benefits to be derived from the completion of the Seaway. Your port is generally conceded to be the best-equipped of all lake ports to handle Seaway traffic as the result of almost 30 years of preparation for the day the Seaway would be a reality.

I am inclined to think that the really outstanding benefits of the Seaway will arise from large lake freighters being able to traverse the Seaway all the way from ports like Milwaukee, Chicago and Duluth and Fort William and Port Arthur at the one end to Montreal at the other, without having to trans-ship from larger to smaller freighters which can navigate the present channels. The benefits will come partly from this saving in trans-shipment costs and partly from the economies which are inherent in the use of large lake freighters, one of the most economical methods of transportation in the modern world. We can look forward, I believe, to substantial reductions in freight costs between lake ports and the Atlantic Ocean.

Chicago's Canadian Ties

There seems little doubt that Chicago, already the largest city and the most important port on the Great Lakes, will get a larger share of the Seaway traffic than any other U. S. or Canadian city. But many, many years will elapse before men will be able to measure the full benefits.

I am pleased to learn that Chicago is preparing to reap the full benefits of its strategic position by expanding and improving the facilities for the trans-shipment of cargoes between the Seaway and the Mississippi. The creation of an entirely new port on Lake Calumet, and the widening of the Calumet - Sag Channel is evidence of constructive imagination on a big scale.

The Seaway will multiply the points of contact between Chicago and Canada. A Department of Trade and Commerce survey of Canadian trade promotion in the U. S. led to the conclusion that the time had come to pay more attention to the Chicago area. Some months ago Consul General's office was strengthened by the appointment of another senior officer, one of our most experienced trade men, and several assistants. Today Chicago is considered to be one of the most efficient, and best staffed, offices in the Canadian foreign trade service — and it deserves to be.

The Communists — and sometimes others who should know better — refer to Canada as a satellite of the U. S. This assertion is so unfounded that it is barely worth denying. Nor do Canadians live in fear that the United States might at some time try to dominate them.

There is, however, in Canada a great and growing pride of country, not anti-American or anti-anyone, but strongly pro-Canadian. We are now engaged in a task, familiar to you, of forging a nation on the North American continent which expresses the desires and the hopes of peoples of many different racial origins living over a vast area.

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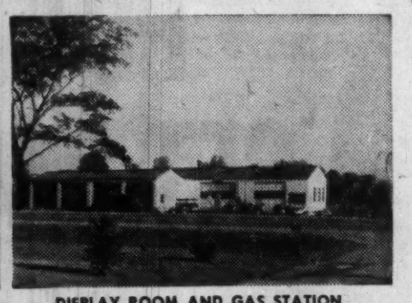

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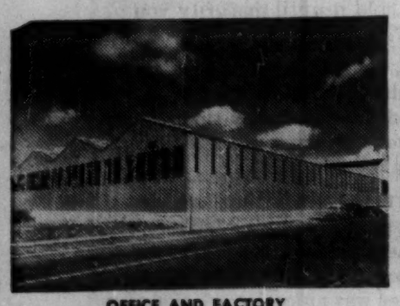

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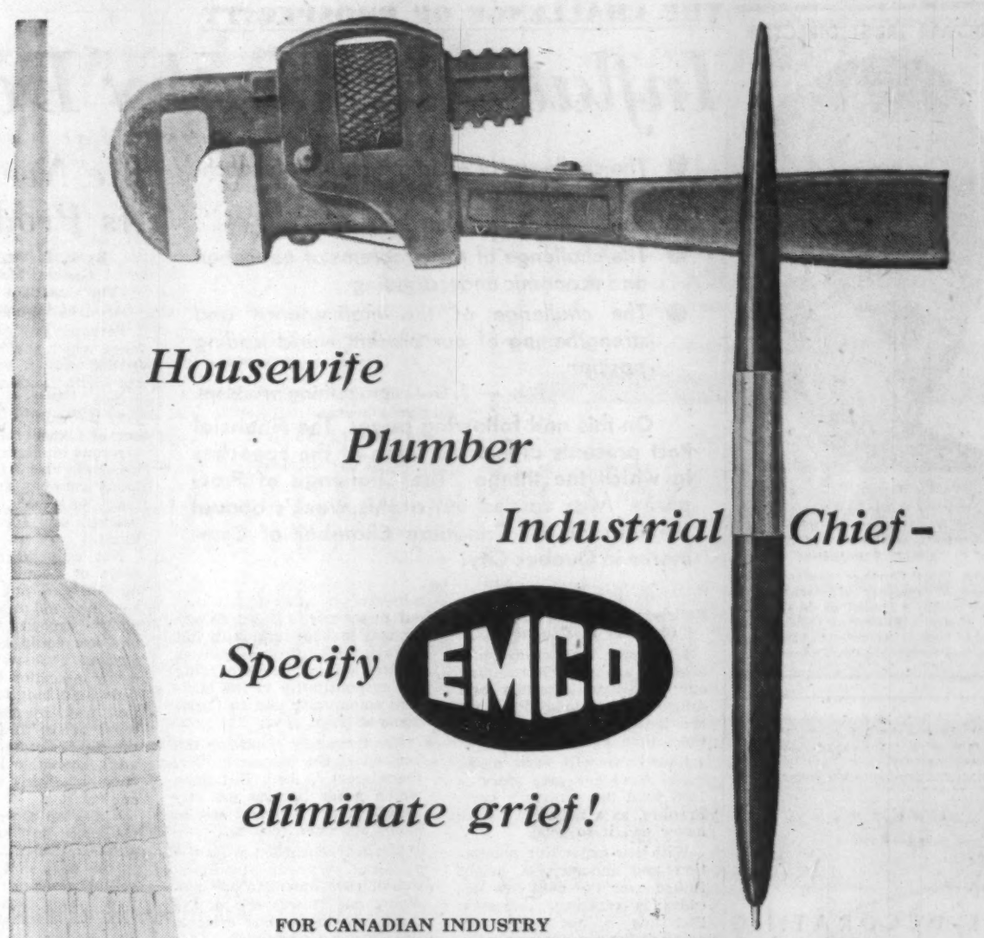

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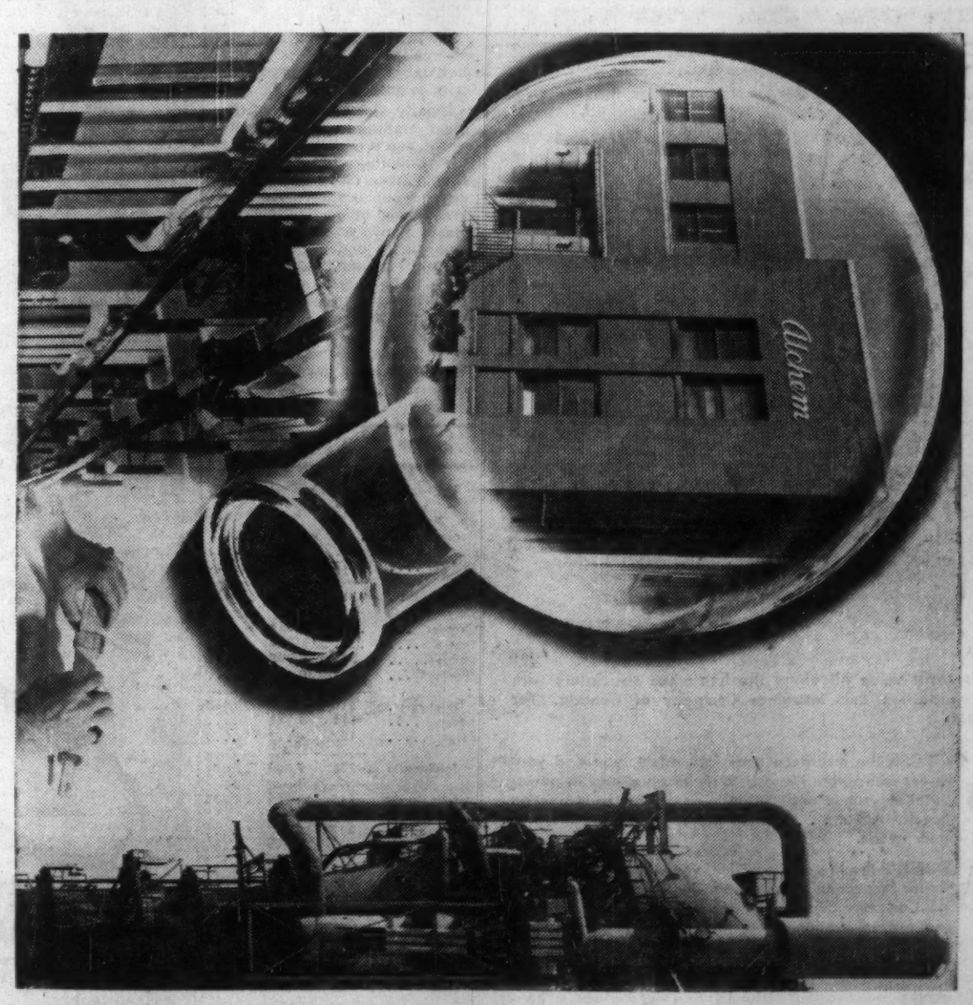

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97—103

ANNOUNCEMENT

CROWN TRUST DIRECTOR

ROBERT E. HALDENBY

Crown Trust Company announces that Robert E. Haldenby of Montreal, has been elected a Director of the company. He is also a Director of General Steel Wares Limited, Sangamo Company Limited and other Canadian Companies.

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THE CHALLENGE OF PROSPERITY

Inflation, Apathy Dangers Now

- *The challenge of socialism and its encroachments on individual liberty.*
- *The challenge of the dangers of inflation.*
- *The challenge of the problems of education and economic understanding.*
- *The challenge of the maintenance and strengthening of our present world trading position.*

— J. G. Crean, retiring president.

On this and following pages, The Financial Post presents digests of some of the speeches in which the theme "The Challenge of Prosperity" was carried out at this week's annual meeting of the Canadian Chamber of Commerce in Quebec City.

By J. G. CREAN,
Retiring President, Canadian Chamber of Commerce

I am sure that we as businessmen are going to examine our challenges carefully and diligently. And today I feel we are better prepared to meet them than ever before.

Canadians will earn more, spend more and save more in 1956 than any previous year. Frankly, as a nation we have never had it so good.

With our expanding population and industry, a bright future over the next few decades is certainly indicated. But this is not necessarily going to happen automatically.

There is a challenge in prosperity. If we forget that prosperity can bring complacency and apathy in its train, if we forget that a great measure of our present prosperity is the result of selling in the markets of the world, and that we can easily price ourselves out of them, if during the present battle of ideologies for the minds of men, we forget that our prosperity is based on our fundamental spiritual faith and morals, then, we as business leaders will not be discharging our responsibility to the business community and to Canadians at large.

Are there any clouds on the horizon at the moment? Yes, there seem to be. But none which needs become too serious if we are prepared now to adopt a prudent course.

We are concerned with the apparent ever-widening interests of government in our economy, and it was one of the main reasons for our brief to the Gordon Commission.

We as businessmen are conscious of the strains which are showing up in our national economy. With increases in production and employment, there has also been an increase in prices, with a climb of about 3% (at the total Gross National Expenditure level) since the second quarter of last year.

Thirdly, there is coupled with our astounding growth, the fact that we have a very high percentage of our population under the age of 20. This is not only a great asset, but like all great assets requires studied development in order to obtain the greatest good for the greatest number. The increase in the number of students at all levels of learning has put a severe strain, not only on our actual classroom facilities, but, more importantly, on the quality and numbers of the teaching profession.

The future of Canada lies with our youth — with today's emphasis on specialization, it is important that a proper balance be struck between the number of graduates disciplined in the liberal arts and those in sciences. Above all, do we realize the dangers to our civilization of accepting mediocrity as good enough.

Finally, Canada is one of the great trading nations of the world, and it is only fitting that the Chamber of Commerce should have close connections beyond our border. By that great bond of goodwill which exists between our countries and with a wider and deeper mutual understanding, we hope to be able to solve what now appears to be an ever-widening trade gap through increased sales of Canadian raw materials and manufactured products in the United States.

We Need More Immigrants As Producers, Consumers

By D. L. MORRELL,
General Manager,
The Canadian Chamber of Commerce

Perhaps the greatest challenge which this country faces in this year of prosperity lies not with capital but with people. With every passing year the validity of the Chamber of Commerce stand for a vigorous immigration program becomes more evident. We are today running short of scientists, engineers, technicians, teachers and specialists of all kinds.

Not only are we running short of people on the production end but on the consumption end as well. Our productive capacity and our services are equipped to serve a greater population. There is every indication that it is high time for a long-term immigration program that will meet these needs. It is hoped that the Royal Commission on Canada's Economic Prospects will have something to say on this subject.

Canadian prosperity offers a challenge to business, labor and government. It is generally conceded that the economy, rolling along at a $29-billion-plus gross national product rate, may be courting inflation and its resulting setbacks.

There has been a trend to higher prices at both the consumer and wholesale levels. Employment rose to an all-

(Continued on page 33)

"I'm told Guaranty Trust is a good place to do business"

4% PAID ON FIXED TERM DEPOSITS

TORONTO MONTREAL OTTAWA WINDSOR NIAGARA FALLS SUDBURY SAULT STE. MARIE CALGARY VANCOUVER

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This Fall the casual hat comes into its own! Stetson "Casuals" are correct for stadium, town or country and they're wanted and worn by the men of today for their swagger, comfort and style! In velours, suedes and blends, with varied bands and ornaments.

Stetson prices: $9.95, $11.95, $15 and up

Mallory Hats (Canada) Limited—a member of the Stetson Group of Companies —also has its own smart line of "Casual" hats.

Stetson Melbourne

a 1956 NIDC design award

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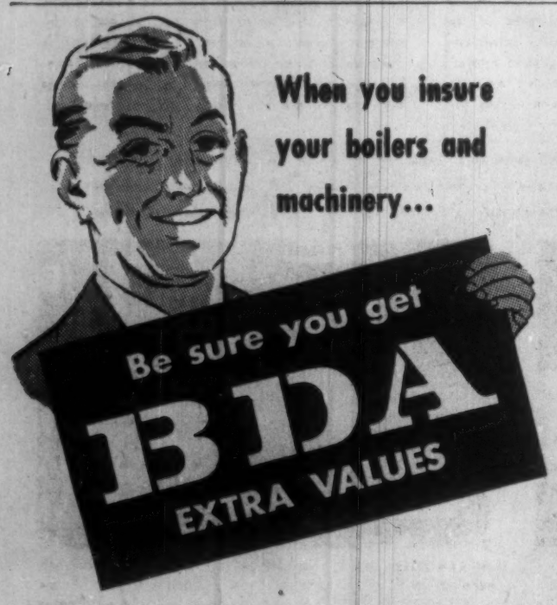

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B **BEFORE** the insurance goes into effect, you and your agent can obtain the assistance of an expert in power plant insurance underwriting — the Boiler Inspection Special Agent . . . to help provide coverage fitted to your needs.

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Experience • Service • Stability

THE BOILER INSPECTION AND INSURANCE COMPANY of Canada

Auto Production

	Wk. End. Oct. 13	To Date 1956	To Date 1955
Am. Motors:			
Hudson	....	1,156	....
Nash	....	2,907	....
Rambler	112	356*	....
Total cars	112	4,419	2,818
Chrysler:			
Chrysler	....	5,044	....
Desoto	....	1,398	....
Dodge	315	35,397	....
Plymouth	295	30,621	....
Total cars	610	72,460	70,625
Dodge	111	5,188	....
Fargo	127	4,612	....
Total trucks	238	9,800	7,671
Cars, trucks	848	82,260	78,296
Ford:			
Ford	827	55,657	....
Mercury	32	6,290	....
Meteor	545	26,155	....
Monarch	10	6,703	....
Total cars	1,414	94,805	106,669
Ford	229	17,074	....
Mercury	127	6,816	....
Meteor S divy.	....	496	....
Total trucks	356	24,386	20,696
Cars, trucks	1,770	119,191	127,365
GM:			
Buick	....	14,738	....
Chevrolet	2,090	52,992	....
Oldsmobile	....	7,968	....
Pontiac	16	33,060	....
Total cars	2,106	108,758	128,157
Chevrolet	431	17,805	....
GMC	295	12,560	....
Pontiac S divy.	....	1,055	....
Total trucks	726	31,420	28,794
Cars, trucks	2,832	140,178	156,951
International:			
Trucks	219	12,485	6,708
Stude.-Pack.	....	6,772	6,940
All cars	4,242	287,214	314,997
All trucks	1,539	78,091	64,111
All vehicles	5,781	365,305	379,108
Last week	4,817	....	....
Last year	4,583	....	....

*Prior to week ending Sept. 22, Rambler production was included with Nash and Hudson.

THE LONGER YOU HOLD THEM... THE BETTER THEY GET

PUT IN $500.00
GET BACK $736.88

... that's big news in saving!

The Eleventh Series of Canada Savings Bonds offers a "stepped up" scale of interest payments which begins at 3¼% and increases in steps until it reaches 4%. This means that one of the new $500 Canada Savings Bonds earns $236.88 in interest during its 12½ years of life. So, if you hold it until maturity you get back $736.88 for each $500 you invest.

As always, Canada Savings Bonds can be cashed for full face value plus earned interest at any time. Every dollar of your investment is always available.

Study the new "stepped up" scale of interest payments in the table on the left. Then make plans now to sign up for your new Canada Savings Bonds. There never was an easier or safer way of putting by a good nest-egg for the future.

ELEVENTH SERIES
CANADA SAVINGS BONDS
INTEREST SCALE

First two coupons pay	3¼%
Next two coupons pay	3½%
Next two coupons pay	3¾%
Last seven coupons pay	4%
Total interest return for each $100 investment if held to maturity—	$47.38

DENOMINATIONS

Coupon Form
$50, $100, $500, $1000, $5000

Fully Registered
(Interest paid by cheque)
$500, $1000, $5000

Limit to registration in any one name—$5000

Immediately cashable for full face value plus earned interest at any time.

BUY
CANADA SAVINGS BONDS

For cash or by instalments through your investment dealer, bank, trust or loan company, or on the Payroll Savings Plan where you work.

THE CHALLENGE OF PROSPERITY

Can We Control Inflationary Trends?

A bank president told the Chamber of Commerce this week:

"Whlie monetary and fiscal policies are not by any means perfect instruments . . . the fact they cannot solve all economic problems must not lead us into thinking they are of no use at all."

Here is a digest of his speech:

By A. C. ASHFORTH
President,
The Toronto-Dominion Bank

We may not have had complete success with our monetary and fiscal policies in the postwar period. Nevertheless, I am convinced that they have an important role to play and can and are making an effective contribution to the full and efficient use of our resources, both human and material. They are a great advancement over passively accepting the effects of the blind forces of the business cycle in our economy.

Yet, they do not interfere unduly with the operation of the market mechanism in the detailed allocation of resources to satisfy our many complex and partly conflicting wants. This mechanism has played a great role in our progress in past generations. Direct controls, which offer perhaps the only other possibility for consciously regulating our economic activities, would suppress the operation of the market mechanism to a very great extent.

The criticisms that are developing of monetary policy today are a reflection of its success. It has been effective by bringing about a general rise in the cost of borrowed capital in every form and by forcing the chartered banks to limit their lending activities.

It has been suggested that monetary policy has an unfair impact on certain sectors of the economy.

For example, some people say that mortgage loans for houses have been too sharply curtailed in view of the continuing rapid rate of family formation.

Others say small business has been hit harder than big business.

Still others say that new and expanding enterprises which would normally seek increased loans each year, suffer unfairly in comparison with older firms which have reached a more stable level of activity. Large concerns have been forced to stretch out their expansion programs. Some municipalities complain that they have been forced to defer needed capital works. These examples are proof that the impact of current monetary policy is broad.

No one will argue that the impact has been the same on all segments of the economy, but the monetary authorities and the chartered banks are on the lookout to guard against any inequities which it is within their power to avoid.

Some people have asked if the frequent changes in the Bank of Canada's rediscount rate have disruptive effects on money markets.

I would say that a change in the discount rate by itself does not have any very direct influence on the market in Canada since the banks as a rule do not borrow from the Bank of Canada. As a matter of fact, the changes in the discount rate over the past year have followed the rising interest rate of the money market.

Nevertheless, the impact of a change in a monetary policy as a whole, in which a change in the discount may be involved in conjunction with other measures, certainly can have disruptive effects in money and capital markets. To some extent it must have such effects in order to accomplish its purposes.

Monetary action to brake inflationary pressures is almost bound to have side effects which are not desired. These undesirable side effects have to be weighed against the seriousness of inflationary pressures. The chartered banks are themselves among the first to feel these undesirable side effects. It is part of their function to act as intermediaries between the monetary authorities and the general public.

This creates important problems of investment policy. In times of relatively slack business conditions, when money is easy, and the government may be resorting to deficit financing, the banks may find that they cannot employ all their funds in business loans and they must use some of them to invest in bonds at relatively low yields—that is at high prices. In boom times the contrary occurs: the banks sell their bonds at relatively low prices in order to meet the loan demands of business. Even though they know in advance that it is what will happen, the banks cannot improve their situation by refusing to participate.

A rate of interest is a price and, like other prices, it plays a part in keeping supply and demand in balance. Higher interest rates are supposed to encourage savings and discourage borrowing. Nowadays we realize that responses to changes in interest rates are not as sensitive as was once thought, but there is undoubtedly an important effect nevertheless.

Secondly, interest rates operate through the bond market as part of the mechanism by which the central bank brings increasing pressure on the other banks to reduce their volume of lending when inflationary pressures are serious.

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The completion of the new Trans-Atlantic cable, from Sydney Mines, N.S., through Clarenville, Nfld., to Oban, Scotland, opens new circuits overseas . . . and also opens wide the doors to vastly improved telephone communication from all parts of Canada to Great Britain. These areas are linked directly to the Trans-Canada Telephone System . . . seven major Canadian telephone companies whose combined long distance telephone facilities send your voice with the speed of light and at surprisingly low cost.

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You can telephone the United Kingdom from most parts of Canada at a basic rate of $9.00.

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Continual Rise in Prices Is One Problem Lying Ahead

By MARCEL BELANGER,
Secretary of the Faculty of Commerce, Laval University.

Perhaps because they are above all of a cyclical character, our fiscal and monetary policies seem powerless in the face of the continuous rise in prices.

I wonder if we are not faced with a structural problem of a cost and price spiral.

Wages seem to be rising more rapidly than is productivity, thus driving production-costs and prices toward a rise, necessitating in that way new wage adjustments.

Productivity per person employed increased by 15.5% from 1950 to 1955 while the average wage of the same persons registered a rise of about 40%, and prices rose by about 20%. Before casting the stone at anyone at all, let us not forget that this situation is the result of free collective bargaining between employers and employees.

Is the tidal wave simply the result of analogous international trends? Is it that we have employed too great a part of the increase of our productivity to the extending of our leisure rather than to additional production of goods and services? These are questions to which any pertinent or definite answers are quite beyond me.

Lastly, what monetary or fiscal policies can be conceived, within the framework of freedom and full employment, to stem this tidal wave?

In spite of the serious limitations to the application of anti-cyclical monetary and fiscal policies, it seems that our governments have succeeded quite well, for the past 10 years, in preventing overly sudden economic fluctuations. There has been neither hyper-inflation nor serious depression.

Despite this remarkable stability, prices have been rising for some years past. Since 1949, for example, the consumers' price index has risen about 20%, the wholesale price index by 30%, while the national accounts implicit price deflator index has registered a rise of 25%. At this rhythm our liquid assets, our insurance, and our pension funds are melting slowly but not the less implacably.

To appraise properly the monetary and fiscal policies followed by the Federal Government for the past 15 or 20 years and the better to understand the policies of the future, I believe it essential to take carefully into account the practical difficulties imposed by the application of these programs in the present context of our economy.

Very often, a rise in prices occurs without a preceding increase in the amount of money in circulation. In such a context, a policy intended to restrict monetary volume will have very little effect on the general level of prices.

For instance, during the past 12 months, monetary volume has increased by only 2% compared with the wholesale-prices index which rose by 3½%.

On the other hand, from 1952 to 1955, characterized by a greater stability of prices, monetary volume registered an average annual increase of about 4%.

The present inflation is therefore not of the "classic type" with the volume of money too high and production too weak. A simple general restriction of credit, not accompanied by more direct measures, could never cure it.

A second limitation to the application of a sound monetary policy in slowing down inflation is the possession by the banks of a considerable quantity of government bonds which they can sell on the open market so as to increase the funds they loan to commerce and industry. To the extent that the bonds they sell are not absorbed by new savings, the traditional restrictive methods no longer suffice and the state must have recourse either to persuasion or to direct controls.

On Nov. 15, 1955, Mr. Coyne preferred to attempt the former recourse by inviting the banks to restrict their loans. Recently he made the same request of the stock-brokers and consumers-loan institutions. Will moral suasion have the desired results? I venture to hope so, for this is an excellent occasion for private enterprise to prove that it can help in the solving of a national problem without there being any need of recourse to direct control by the state.

According to traditional concepts, at least, variations in interest rates are supposed to have a direct effect upon savings and investments. In the present economic situation, however, internal credit finds

(Continued on page 34)

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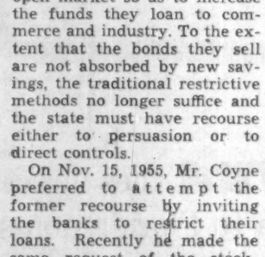
INTERCOM



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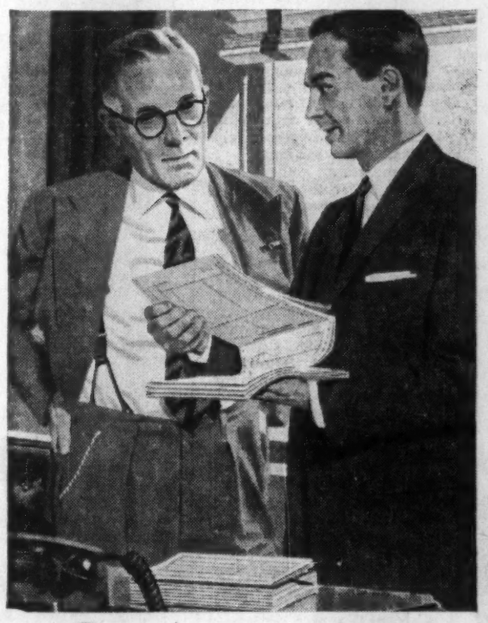
Small Business has the same need for automation's new benefits. The Moore man applies principles of ADP to give every business maximum data processing benefits with the investment tailored to the budget.

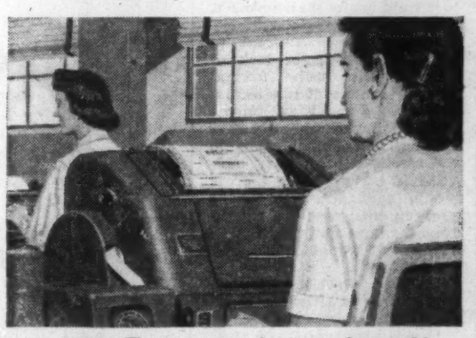


The immediate benefits of planning for automation in office procedures are the results of the systems approach . . . the design of a straight-line work flow that provides for accurate, speedy processing of data. For the larger corporation, such procedure analysis may only correct a simple routine which proved to have been the bottleneck of the entire operation. For the smaller company it may involve a complete integrated system from order-taking to management analysis or any other procedures that are called for.

Moore manufactures forms only, and not ADP machines. For that reason it approaches a systems problem with an open mind. It considers the automation required, and plans the correct forms and constructions so that an entire system is integrated for efficiency.

When a business gets just the automation it needs to do its work better, excessive investment is not called for. The system fits the purpose and the purse, and introduces benefits on a pay-for-itself basis. Calling the Moore man can be the first step in this process.

Distance is no disadvantage when ADP shortens the time lag of an order. By cutting 'travel time' between receipt of an order and its entry at the warehouse, ADP improves customer service and speeds operations connected with shipping, invoicing and tabulating sales analyses.



SALES OFFICE The customer order is typed on a Moore 3-part form. One part is the customer's acknowledgment. A by-product of this typing is a coded tape which permits automatic transmission of the order to the warehouse.

WAREHOUSE Simultaneously, a duplicate tape produced here is used by Jeanine to type automatically a Moore 5-part shipping order. As a by-product of this automatic writing, Jeanine gets a tape containing invoice information.

INVOICING The tape Jeanine prepared is used by Grace in the Billing Dept. to write invoices automatically. Grace completes extensions. Simultaneously, this typing cuts another tape containing selected data for inventory and sales analysis.

STATISTICS The small company may turn over its selective tapes to service bureaus, where they're converted to punched cards for tabulating into sales summaries. Many large concerns are equipped to do this work on their own premises.

Moore forms are the heart of the system . . . *they deliver the ADP benefits*

Speed and accuracy are built into a system like this—with the warehouse getting instructions the same day the order is received. Delays are eliminated, and so are the nuisance and negative results caused by transcribing errors. Invoices go out speedily. Sales analyses are prepared rapidly for up-to-the-minute reports on inventory conditions. Any company, large or small, can enjoy similar ADP benefits. Call your Moore representative today, or write the Moore office nearest you.

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ANNOUNCEMENT

M. TEMPLE

whose appointment as Manager of the Industrial Division of Geo. T. Davie & Sons, Ltd., Lauzon, Quebec, has been announced by Mr. André Delagrave, President.

THE CHALLENGE OF PROSPERITY

Business Must Learn to Tell Its Story

A leading public relations adviser counseled the Chamber of Commerce this week that it is not enough to educate young Canadians, they must also be informed —by business, baout business.

Here is a digest of his adress:

By LEONARD L. KNOTT
President, Canadian Public Relations Society

Universities are victims of inflation, both economically and population-wise. They are urgently in need of funds. Business has not yet recognized its responsibility to the source of its manpower. It seeks trained, educated people but is unwilling to pay to train and educate them. More aid to universities, more scholarships with no strings attached, as available to the arts student as to the engineer, are tools for building understanding among students.

Business must learn to tell its own story more effectively and one way is by inviting to its conventions and assemblies speakers from the ranks of top business management instead of men of government whose importance they simply emphasize. Business must learn to use radio and television more effectively, not simply through irritating commercials, but through the intelligent presentation of its achievements.

These are first objectives, in reaching student minds as well as the minds of adult Canadians. Advertising, it is said, to be successful must be directed at the 12-year-old mind. And if the only way business can talk is through that kind of advertising, business should not be surprised if it wins little respect from the intelligent student.

A second objective which must be attained if the true story of business is to reach the enquiring student is to inform the faculty. For far too long, too many businessmen have dismissed university professors as impractical dreamers. Perhaps some of them are, but also, perhaps, one of the reasons is that no one in business has taken the time to understand and work with them.

Finally, there is the direct approach to the students.

The university student can no longer be permitted to read and talk and listen and experiment and discover for himself. It is no longer sufficient to give him the keys to knowledge and permit him to unlock the doors for himself. Today he must be guided along certain passages; he must not only be stimulated mentally, he must be informed. Somebody must separate truth from error for him, instead of allowing him to find the difference for himself.

We are not able today to be satisfied with educated men. We must also have informed men. And we must see that he is correctly informed, for his protection as well as for our own. There is no longer time to permit him the luxury of trial and error. There are too many advocates of evil seeking to reach him during the trial period.

Practically every abuse that was complained of half a century ago has disappeared. Today's worker is the pampered pet of industry. And yet the radical, the uninformed student has become more dangerous than ever before. Business which was not at all concerned about what students thought about it in the first quarter of this century, when it had some reason to be concerned, has now reformed itself beyond all recognition and has also become aware that it is misunderstood. It has recognized the need for communicating with students, for informing the young, partly educated mind.

And now the problem arises of how to reach that mind, how to create among our youth an understanding of our economic system of competitive enterprise.

First, let us recognize the fact that every university student is going to be exposed to some radical teachings of the past. He is going to learn that greed and the lust for power were not the exclusive properties of political tyrants. There were a few industrial robber barons, too.

He must then be exposed to the fact that within industry and business itself, robber barons are no longer popular. He must be given access to information which will show him that real danger today is not from private monopolies but from monopoly by the state. He must be helped to reason for himself that all that is good does not flow from Ottawa, that the so-called benefits he receives from government eventually comes out of his own pocket and that Santa Claus is a misnomer for a federal minister.

Colleges And Ideas Big Need

By DR. WATSON KIRKCONNELL,
President, Acadia University, Wolfville, N.S.

If we are to have a free and fresh flow of valid ideas, it is pre-eminently at the universities that this will be found and maintained.

We shall always have a few screwballs and eccentrics there, but we should not forget that it is often the screwball and the eccentric who gives that little twist of insight to an old truth that makes it still more vital for the future.

But the universities are in grave difficulties for lack of financial help. If the survival of these centres of intellectual freedom is really of importance to the nation, why cannot the businessmen come to the rescue of university budgets? If every firm in Canada would contribute 1% of its gross profits each year to a fund for Canadian universities, the benefit would be incalculable.

The responsibility is not merely that of active firms and corporations.

If the well-to-do owe their well-being to the free community, they have a duty to share some of their formidable wealth with the institutions of that community.

The question of freedom as it affects the university (on the Canadian scene) is essentially freedom of teaching, research and discussion. Truth is not a static thing, but is continually subject to revision in the light of new scientific discoveries, new imaginative insights and new refinements of argument. So long as there is an absolutely free forum for ideas, old principles must continually defend themselves against salutary criticism and new theories must continually be put to the tests of reasoning, experiment and counter-evidence.

You will realize, therefore, why universities are so jealous of their autonomy in the matter of professional opinion. Cases have not been unknown, although happily seldom in this country, where indignant businessmen or legislators have demanded the dismissal of some sharp-tongued professor who has publicly questioned some principle that they regard as fundamental . . .

But what if the talkative rascal happens to be right? He will certainly have given far more thought to the contentious question than most of those who clamor for his

(Continued on page 34)

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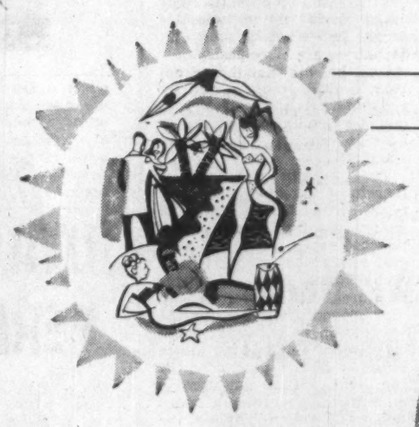

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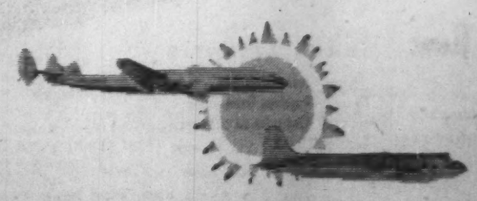

TRANS-CANADA AIR LINES

ANNOUNCEMENT

J. PAUL BERTRAND

whose appointment as director of sales of Dow Brewery Limited has been announced by J. Armand Desrochers, vice-president and general manager of the company. Mr. Bertrand, who was appointed assistant director of sales earlier this year following more than three years service as regional sales manager in Montreal, succeeds W. Gorman Kennedy, who resigned recently.

THE CHALLENGE OF PROSPERITY

One Hope for Trade

By R. C. BERKINSHAW

President, Canadian Council, International Chamber of Commerce and president and general manager of Goodyear Tire and Rubber Co.

The process of gradually eliminating restrictions on payments and increasing the freedom with which exchange transactions can be carried out continues and a number of European countries today might be said to be quite close to the realization of full convertibility. Unfortunately, sterling cannot be counted among these. The day should and must come, however, when sterling again becomes fully convertible, even if it should take help from others, including ourselves.

The return of convertibility is particularly important for Canada because it would tend to reduce our heavy reliance upon U. S. both for the export and import of goods and services. I believe it would be most desirable for Canada to see a much wider geographical distribution of its foreign trade.

In the political world climate in which we find ourselves today, it is essential that the democratic countries of the world co-operate to make their own economies as dynamic and as strong as possible. Everywhere we see a growing realization of this. For some time now there has been talk of a common market for at least some of the European countries and we — just a couple of weeks ago — heard Harold Macmillan, Chancellor of the Exchequer in Britain, suggest that the United Kingdom join this common market group, which to date has existed in France, Italy, Western Germany and the Benelux countries.

Already before Mr. Macmillan's statement I had planned to mention the work which is being done on the common market in Europe, for I do not believe it is sufficiently well known in Canada or recognized.

The International Chamber of Commerce, however, has followed this development over a period of time and I can assure you that it is being given the most serious consideration by responsible leaders in the European business community.

In connection with the British proposal, it has been pointed out that a split might develop in the Western economies between a dollar bloc and a sterling bloc. I think that this danger may exist, but I do not believe the remedy lies in opposing the movement toward a common market or against Britain's joining it. The goal we must aim for is free convertibility of currencies. This would certainly be to Canada's advantage as well as in the interest of the Western countries as a whole. With full convertibility of sterling, the market for Canadian goods in Britain and the sterling area would have been much better.

While the goal of convertibility may at times seem a very difficult one to reach — particularly when such a crisis as that of the Suez throws a monkey wrench into the works — international co-operation toward the desired goal still persists. There is broad agreement in most countries that currencies ought to be fully convertible, and that inconvertibility introduces important distortions into an economic system. Only about a dozen of the 58 members of the International Monetary Fund maintain fully convertible currencies but about that many again have come fairly close to full convertibility.

An American Asks Caution On Big Investment Problem

By LAURENCE P. LEE

Jacksonville, Fla., president Peninsular Life Insurance Co., and Chairman, U. S. section, Canada-U. S. committee.

We in the U. S. are fully aware of the widespread concern in Canada over the extent of U. S. capital investment. The point is made that there should be much wider stock participation by Canadians in U. S. subsidiaries in Canada.

I do not claim to know the whole solution. I do believe the problem will be worked out. In any case, I am sure that these are problems which our two countries must work out together amicably. The U. S. investor, of course, having confidence in the political and economic stability of Canada has been eager to invest there. He must take steps on his own to make his investment more welcome— to show his appreciation for the opportunity to do business in Canada.

Many of the things which Canada buys from us in the way of machinery and manufactures are required to service U. S. investments in Canada which are in considerable measure responsible for Canada's current prosperity. This is in a real sense a long-term investment in Canada's sound economic future. In due time, Canada will be producing those things for her own needs and for export to the United States. In this way, better balance will be achieved. One of the most fundamental factors not to be overlooked is the multiplier effect of investment — the creation of many supplementary industries and businesses to service such investment.

Before taking drastic action to impose restrictions on imports into Canada or to restrain in some way the continued foreign investment in Canada, it might be well to be sure the alternatives are more desirable. I do not believe that they are.

Our industrial workshop is geared to a high level of exports. So is American agriculture. A substantial reduction in our exports would reduce living standards in the United States and create unemployment.

Other countries need our exports to develop their own industries, but they cannot buy them unless they can sell in our market. Obviously, we must bring our imports into better balance with our exports. This is much easier to say than to accomplish, but we insist that it be balanced at the highest possible level, not at the lowest level.

When I say that the U. S. must find ways to increase our imports, I am thinking in terms of competitive imports — imports that would compete for the favor of the American consumer with those of our own production or manufacture.

This is the point at which the shoe begins to pinch. While the nature of Canada - U. S. trade is more complementary than competitive — to bring about a better balance of our trade would no doubt bring a greater degree of competition into the picture.

We Need Immigrants

(Continued from page 30)

time high this summer with a correspondingly tight labor market. Wage and salary rates have shown a tendency to move up. In part this reflects the brisk demand for workers but it may also indicate that the wage - price merry - go - round is gaining momentum.

In the early part of this year the aggregate of payrolls in manufacturing were more than 10% above last year with little or no increase in hours worked. At the same time time manufacturing output was only about 7% higher than a year ago. Thus there is some evidence that salaries and wages may be outstripping productivity. This is a situation which if continued or accelerated would add new fuel to whatever inflationary fires are burning.

The exuberant and robust condition of the Canadian economy is due largely to the rich diet of capital expenditures which has been fed into it this year. The combined value of all public and private investment planned for 1956 amounted to $8 billion; more than a quarter again as large as actual outlays in 1955. All of these plans will not be realized but it seems that actual expenditures this year will achieve new records. Only two areas of capital expenditure—government and housing—are not keeping pace with the general trend.

It is surprising that one of the chief causes of the Canadian boom—the influx of American and foreign capital—has created a good deal of public concern. It can be noted, however, that Canadian Government policy since the war has aimed at providing a climate that will attract outside capital to this country. Business has supported this policy which calls for the sensible handling of our fiscal and monetary affairs and for a minimum of restrictions on private enterprise. The fact is that there are few countries in the world today that are as attractive to capital as Canada. A continued inflow of capital into the relative safety of this country seems not unlikely.

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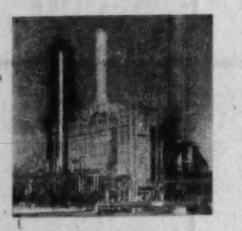

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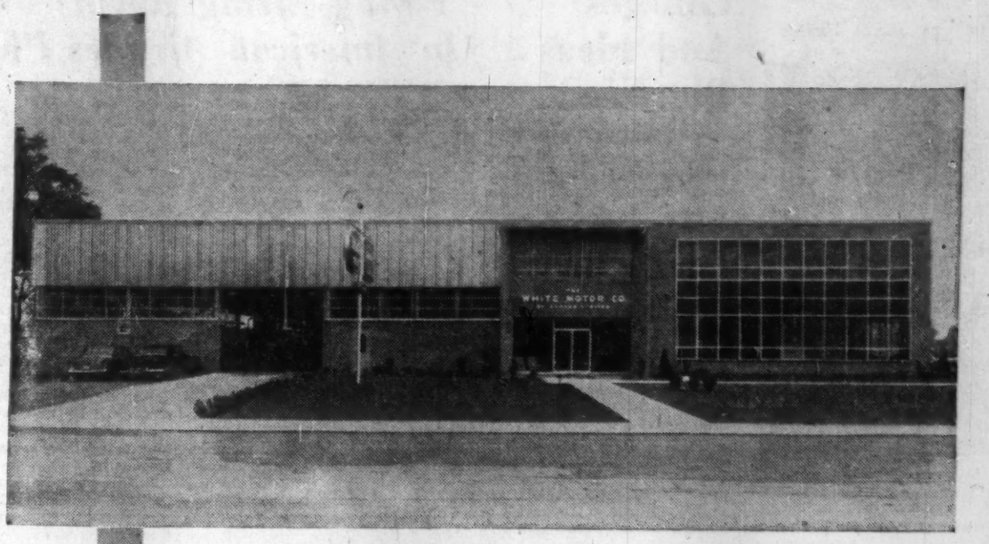

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With our thanks to the entire trucking industry from coast to coast we are happy to say that our new Canadian Headquarters and Toronto Branch Sales and Service Centre are now open, and going strong.

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Another step in this program is complete, and we are now planning further expansion. We feel an obligation to the trucking industry. It is our intention that we shall provide, everywhere in this country, not only the finest in heavy duty trucks, but the finest in service to the trucking industry, which itself is doing so much for this country.

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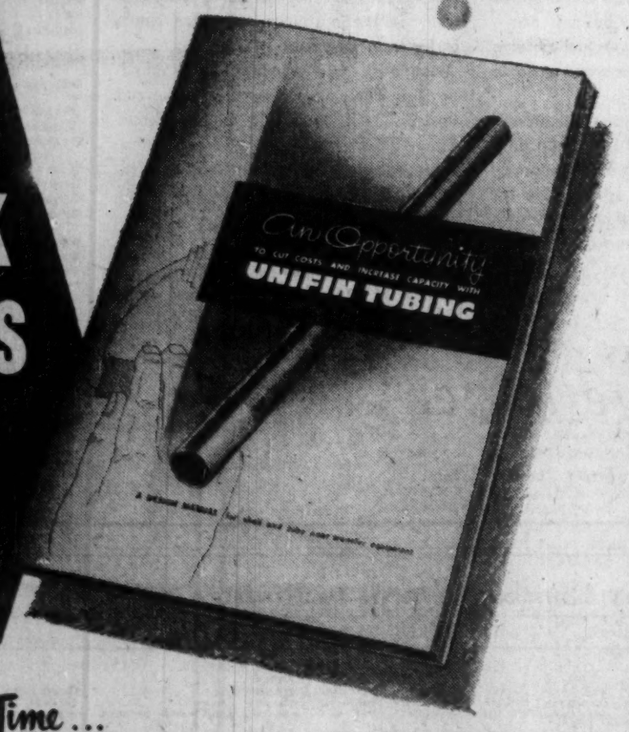

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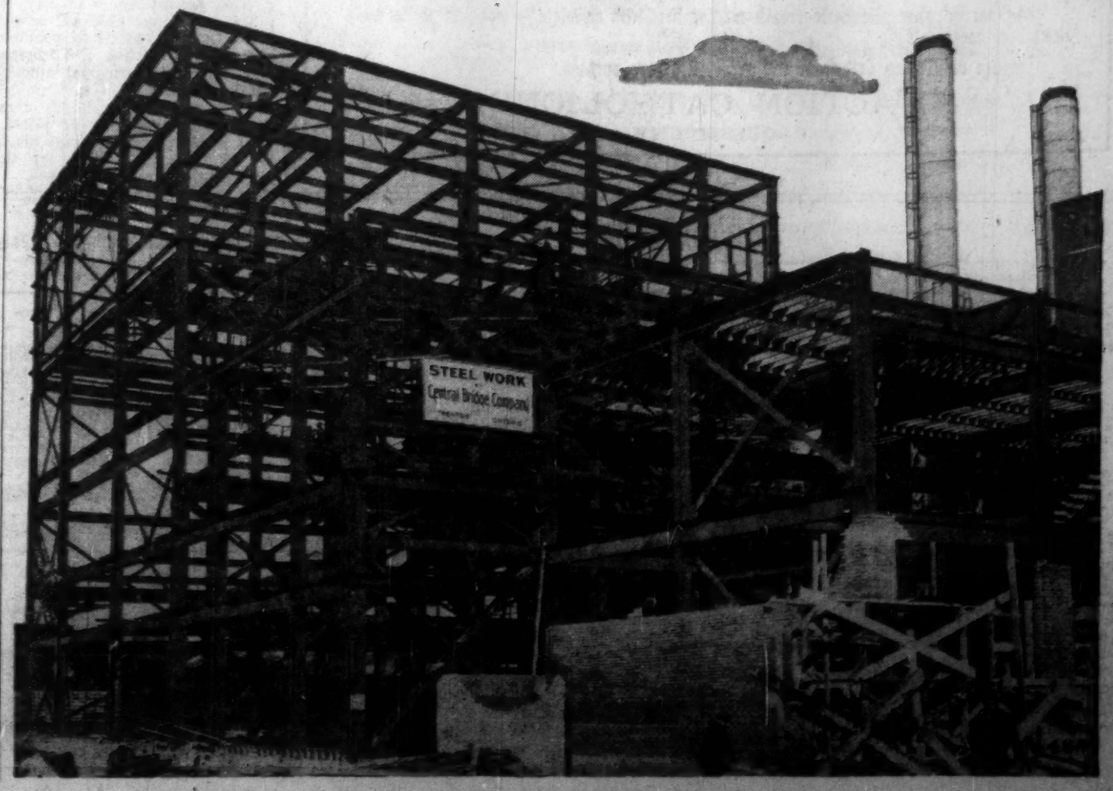
UTILITIES DEMAND THE STRENGTH AND PERMANENCE OF FABRICATED STEEL

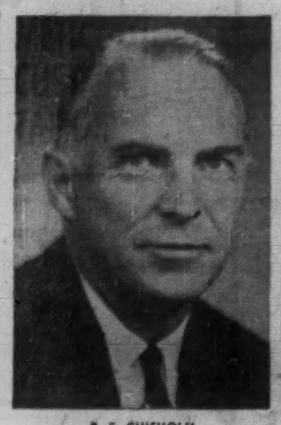
Utilities and particularly electric utilities are always in the news because they are so closely identified with our economic wealth. For example this generating station for the Saskatchewan Power Corporation at Saskatoon. Here Central Bridge erected 529 tons of structural steel—with speed and permanence. Central fabricates and builds bridges, ship bottoms, communication towers and tanks in addition to commercial and industrial structures.

CENTRAL BRIDGE Company Limited Fraser, Ontario



ANNOUNCEMENT

Dominion Stores Limited



R. F. CHISHOLM

Mr. Thomas G. McCormack, President of Dominion Stores Limited, announces the appointment of Mr. Robert F. Chisholm as Vice-President, with headquarters at Toronto. Mr. Chisholm was previously Vice-President and General Manager of Gordon Mackay & Company Limited, with whom he was associated for 18 years. He will undertake administrative assignments relevant to the continued planned development of Dominion and its associated companies across Canada.

Colleges And Ideas Big Need

(Continued from page 32)

ejection. How shall we know the truth of the matter except as the facts are hammered out in discussions with other academic blacksmiths by the murky forge-fire of basic research? Merely to suppress an opinion out of prejudice, no matter how honestly held, proves nothing as to the opinion's merits or demerits.

It is one of the ironies of our time, however, that the Communist, on behalf of whose right to a professorship so many hysterical champions of human freedom have screamed to high heaven during the past ten years, is precisely the man who has deliberately paralysed all freedom of thought in his own brain . . .

Canada has wisely refrained from loyalty oaths for teachers, from witch hunts and from classroom snooping. But it is also wise for us to recognize that a Communist is by definition unfit to teach.

'Flying Living Rooms' by '59 In American Airlines Planes

MONTREAL (Staff) — Seating arrangements in airliners are seldom inspiring. With the exception of very long-range planes that can support a lounge or bar, seating has not varied since the start of the airline business.

But this month **American Airlines**, which flies into Toronto, announced the old idea is out—no more rows of seats all facing one direction. American's fast new turbo-prop Lockheed Electras — due in service early in 1959—will have a radical new seating plan.

It combines the best features of the airliner and the executive plane.

Central feature of the new design is a series of three compartments which resemble, more than anything else, modern, comfortable living rooms.

The seating is informal—chairs placed in singles, twos, and "conversational" groupings of three and fours. There are to be appropriately placed tables and table lamps.

Overhead racks, another long-standing feature of all airline cabins, have been recessed into the bulkheads so there is full head room throughout each of the "living rooms."

The informal seating arrangement, the airline says, provides equal access to all seats.

Seven Seating Sections

With the three new compartments, American's Electras will have a total of seven separate seating sections. Two will be standard cabin treatments, each with three rows of two-and-two reclining airline seats.

A small section of club-type seats, seating six, will be next to the buffet area. A lounge in the tail section of the plane will seat five. Over-all, American's Electras will seat 76 passengers.

The key to the thinking in this design is to give the passenger privacy if he wishes to be alone, or an easy atmosphere for groups to get together to talk, work or play cards.

In the desperate race to woo the air traveler, this move has caught many rival airline executives by surprise. With services so nearly equal, anything new which catches the public fancy can mean big business.

If surveys show passenger reaction potentially favorable to the new design concept, the odds are on other airlines adopting more informal seating arrangements.

More Growth For Pembina

A new oil discovery promises to extend the huge Pembina oilfield in the west-central section of Alberta four miles eastward.

With the thickest cardium sand pay zone in Canadian oil history, Cree, Scurry-Rainbow Century-Monarch, Warburg No. 7-10 well flowed 34-gravity oil at the rate of 3,840 barrels a day in a recent two-hr. production test.

The new well near Warburg, less than 6 miles from the Pembina pipeline, is located 45 miles south-west of Edmonton.

Completed at a depth of 4,200 ft., the new well topped heavily saturated 47 ft. of cardium payzone at 4,153 ft. **Century Oils, Monarch Oils, Cree Oil** and **Scurry-Rainbow Oil Ltd.** all participate in the new success.

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U. S. Steel Firm Will Make, Sell Stelco Nail

Arrangements have been concluded for the manufacture and sale in the U. S. of "Ardox" spiral nails, **Steel of Canada** reports.

Jones & Laughlin Steel Corp., one of the larger steel companies in U.S., has been licensed to manufacture and distribute these nails by Steel Co. of Canada, at whose wire mills the manufacturing process has been developed.

This step is a reversal of the much more frequent procedure of Canadian companies manufacturing products and adopting processes which have previously been developed in U. S. The wire process is entirely new and is expected to have an application in several other fields in addition to the manufacture of nails.

Dom. Engineering Wins New Zealand Turbine Contract

MONTREAL (Staff) — This week a Canadian company announced it had won a major turbine contract in New Zealand in the face of world-wide competition.

Dominion Engineering Co. has been awarded a contract by the New Zealand state hydro electric department to build three 40,000 hp hydraulic turbines for its Ohakuri power plant.

Rival bids came from Britain, Sweden, West Germany, Switzerland and Japan. To observers, Britain with preferential tariff agreements, and West Germany and Italy with low labor costs, looked unbeatable.

But a number of factors swung things in Canada's favor. The Whakamaru and Roxburgh power plants in New Zealand are equipped with Dominion Engineering turbines. Early performance reports from these are good.

Also, experience in facing similar problems in Canada — and having a suitable turbine fully developed and working here — came into the reckoning. Dominion Engineering was able to cut its price by having no development expenses.

The Ohakuri turbines will be built at Dominion Engineering's Lachine plant. Only the fabricated steel parts will be built in New Zealand under license.

New Zealand Government will not allow any price to be given out by the company. Since the war, Dominion Engineering has sold turbines to New Zealand, Brazil, Pakistan, Russia and Bolivia worth some $11.5 million.

Continual Rise in Prices Is One Problem Lying Ahead

(Continued from page 31)

itself replaced to a certain extent by foreign credit, thus placing the banking authorities in a quite delicate situation.

Moreover, in view of high income tax rates, business concerns are in a manner immunized against a rise in the general interest rate. Each increase in the cost of financing new plants or equipment is in reality supported only in the proportion of 53% by the enterprise concerned, the Government absorbing the remainder by way of reduction in the taxes paid.

Adding to these two difficulties the tendency toward rising costs of labor and construction materials, it should occasion no surprise to witness an increase in investment for new industrial construction and new machinery. The cost of holding these projects in abeyance becomes higher than the increased cost of financing.

What happens when long-range monetary policies are employed to correct a passing trouble?

Easing of credit for housing contributed greatly to the business recovery of 1954. Today, however, is it not a drain upon resources which, utilized in other sectors, would promote a saner expansion of the economy? At the present time, should not a substantial reduction in the construction of residences be an excellent means of decreasing the inflationary thrust?

Putting into practice of a sound fiscal policy also presents serious limitations.

It is generally admitted that we should not count too much on the anti-cyclical variation of public works, above all to correct inflation. The provinces and the municipalities have a natural tendency to drift with the economic current rather than to stem it. In other words, in a period of prosperity, even if this degenerates into inflation, they increase their expenditures thanks to more abundant taxes and greater borrowing facilities.

The Federal Government itself, having to devote 70% of its purchases of goods and services to purposes of defense, can only with great difficulty reduce its expenditures, particularly when prices are on the rise.

Lastly, the development of our natural resources demands of the state preliminary expenditures, such as the building of roads, airports, etc., before they can be opened up to private investment. As a consequence we are witnessing, a little perplexed, the increase, in a period of inflation, of government expenditures for goods and services while in the fight against inflation they ought to be diminishing.

If public works offer very little hope as a means of combating inflation, the manipulation of taxes can prove a more efficacious arm in spite of certain limitations inherent in it. The tax yield, even without change of rates, constitutes of itself an anti-cyclical measure, because it increases automatically in time of prosperity and decreases with a falling-off of business.

The question is, however, whether or not this new built-in stabilizer will be elastic enough to function with success in time of marked inflationary pressures. A more bitter pill might prove necessary but I hope as strongly as you we do not have to swallow it.

Advertisement

WHY WALL STREET JOURNAL READERS LIVE BETTER

By a Subscriber

I work in a large city. Over a period of time I noticed that men who read The Wall Street Journal are better dressed, drive better cars, have better homes and eat in better restaurants.

I said to myself, "Which came first, the hen or the egg? Do they read The Journal because they have more money, or do they have more money because they read The Journal?"

I started asking discreet questions. I found that it works both ways. Men who are well off have to have the information in The Journal. And average fellows like me can actually win advancement and build up increased incomes by reading The Journal. How do I know? Because not long ago I subscribed to The Journal and it has put me ahead already.

This story is typical. Because the reports in The Wall Street Journal come to you daily, you get quick warning of any new trend that may affect your income. You get the facts in time to protect your interests or seize a profit. The Journal is a wonderful aid to salaried men making $7,000 to $20,000 a year. It is valuable to owners of small business concerns. It can be of priceless benefit to ambitious young men.

The Wall Street Journal is the complete business DAILY. Has largest staff of writers on business and finance. The only business paper served by all four big press associations. Its costs $20 a year, but you can get a Trial Subscription for three months for $6. Just tear out this ad and attach check for $6 and mail. Or tell us to bill you. CFP 10-20

Address: The Wall Street Journal, 44 Broad St., New York 4, N.Y.

Everyone Knows . . .

QUEBEC

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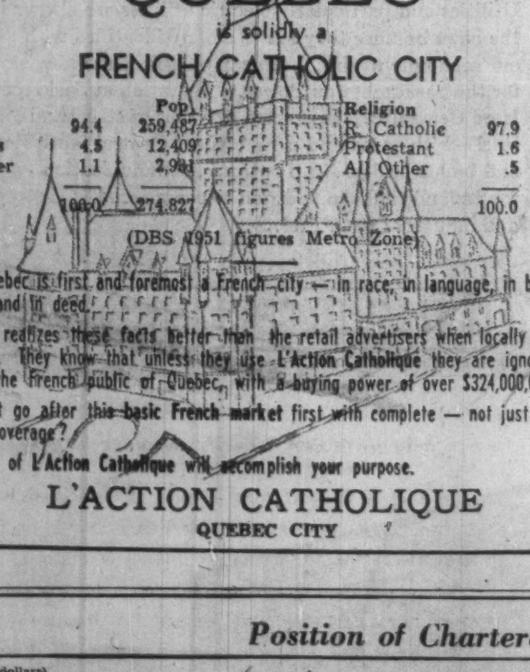
FRENCH CATHOLIC CITY



Origin		Pop.	Religion		Pop.
French	94.4	259,487	R. Catholic	97.9	269,293
Br. Isles	4.5	12,409	Protestant	1.6	4,497
All Other	1.1	2,981	All Other	.5	1,037
	100.0	274,827		100.0	274,827

(DBS 1951 figures Metro Zone)

Yes, Quebec is first and foremost a French city — in race, in language, in buying habits, in thought and in deed.

No one realizes these facts better than the retail advertisers when locally buying newspaper space. They know that unless they use L'Action Catholique they are ignoring a large section of the French public of Quebec, with a buying power of over $324,000,000 per year.

Why not go after this basic French market first with complete — not just partial daily newspaper coverage?

The use of L'Action Catholique will accomplish your purpose.

L'ACTION CATHOLIQUE
QUEBEC CITY

Sell Pembina 5% Debentures

MONTREAL (Staff) — An issue of $1.4 million 5% convertible sinking fund debentures of **Pembina Pipe Line Ltd.** has been sold privately by **Nesbitt, Thomson & Co.** and **Brawley, Cathers & Co.**

The debentures, due Oct. 1, 1974, are convertible on or before Oct. 1, 1960, into common shares on the basis of 11 shares for each $500 principal amount of debentures.

The sales follows closely a recent private offering of $3,125,000, in 4½% first mortgage bonds of Pembina Pipe, made by the same two investment houses.

So convenient!

. . . printing postage as you need it!

You can print your own postage, any amount for any kind of mail, as you need it . . . when you have a postage meter. You just dial, press the lever—and your letter's stamped!

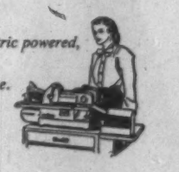
ONCE only big business could afford metered mail. Today, *any* business can—with the little DM, desk-model postage meter. *One-third of its users spend less than a dollar a day for postage!*

Once you have a DM, you're all through with stamp sticking, and the stamp box! You print postage as you need it, directly on the envelope—or on special tape for parcel post. The meter will print your own small advertisement, if you want one. And it has a moistener for sealing envelopes!

The postoffice sets the meter for as much postage as you need—and you always have the right stamp. Your postage is protected from damage, loss, theft, is automatically accounted for on visible registers.

Metered letters and parcels are already postmarked and cancelled, can be processed faster in the postoffice and often catch earlier trains or planes.

Anybody can use the DM, save time and postage. There's a meter model for every business, large or small. Call the nearest Pitney-Bowes office *(list at right)* for a demonstration. Or write for free booklet, and a free Postal Slide Guide with rates for all classes of mail.



MODEL 4200, *electric powered, stamps and seals 175 letters a minute.*

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London Ont—69 Dundas St., 3-9150
Moncton NB—961 Main St., 4-5605
Montreal 1 PQ—455 Craig St. W., UNiversity 6-1501
Ottawa 4 Ont—382 Bank St., CEntral 2-1744
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Quebec 2 PQ—Le Centre Champlain, Rue De La Couronne, 3-4389
Regina Sask—298 Somerset Bldg., Eleventh Ave., LA 2-5790
Saint John NB—21 Wall St., 3-2273
Saskatoon Sask—489 Second Ave. N., 20-077
St Catharines Ont—Room 6, 60 St. Paul St., MUtual 2-0521
St John's Nfld—11 Church Hill, (P.O. Box 572), 7086
Toronto 1 Ont—181 King St. W., WAlnut 3-4693
Vancouver 1 BC—972 Howe St., MArine 7304
Victoria BC—Williams Bldg., 749 Broughton St., 4-5323
Windsor Ont—31 Hanna St. West, CLearwater 2-3774
Winnipeg 2 Man—452 Notre Dame Ave., 922-491

FREE: *Handy Postal Slide Guide with rates for all classes of mail. Ask the nearest Pitney-Bowes branch . . . or write Pitney-Bowes of Canada, Ltd., Dept. 428, 1156 Bay Street, Toronto 5, Ont.*

Position of Chartered Banks of Canada as at August 31, 1956, Shown by Monthly Returns to Minister of Finance

(Thousands of dollars)

ASSETS

NAME OF BANK	Gold & coin in Canada	Gold & coin outside Canada	Notes & deposits with Bk. of Can.	Gov. and bk. notes other than Can. currency	Dep. with oth. banks in Can. currency	Deposits with oth. bks. in currencies oth. than Can.	Cheques and oth. items in transit, net	Gov. of Can. treasury bills	Dom. Gov. Short Term Sec.	Dom. Gov. Long Term Sec.	Prov. Gov. Sec.	Municipal Sec.	Other Can. Sec.	Securities oth. than Can.	Mtges.	Call and short loans in Can.	Call and short loans outside Can.	Loans to Can. Prov. Gov.	Loans to municipalities	Other current loans in Can.	Other current loans outside Can.	Non-current loans	Bank premises	Shares and loans to corporations	Letters of credit	Other assets	Total assets
	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$
Montreal	4,270	17	204,981	3,737	1,222	50,378	163,175	165,125	72,306	398,042	80,077	39,647	126,557	45,867	90,617	49,815	34,769	18,340	27,217	1,076,927	27,495	426	30,400	1,490	38,320	756	2,732,498
Nova Scotia	1,510	326	69,350	6,115	54	22,182	75,361	67,467	52,325	93,370	4,148	11,521	41,830	19,287	19,802	15,031	97,820	1,302	11,605	528,977	78,845	1	14,060	5,659	18,250	681	1,357,016
Toronto-Dominion	2,145	1	73,009	2,848	70	21,963	95,036	80,546	22,908	160,617	28,358	23,149	28,728	1,240	32,706	21,397	47,632	3,239	13,585	593,497	2,568	76	19,057	.....	14,865	58	1,393,198
Provinciale	621	.....	22,503	393	16	1,351	9,758	21,137	3,524	39,372	14,425	10,726	6,966	362	2,197	7,770	.....	1,302	13,121	100,265	.....	81	4,856	.....	7,726	353	272,528
Commerce	3,050	79	146,540	2,956	936	44,894	117,077	144,023	136,912	160,546	31,390	34,857	54,370	71,091	86,196	44,273	144,074	8,265	19,958	954,515	54,043	442	24,935	18,401	36,708	1,074	2,392,723
Royal	3,562	1,164	188,167	22,797	1,676	154,566	137,153	238,950	190,243	311,121	80,071	35,437	202,030	210,759	163,865	58,256	86,289	19,240	21,645	993,296	174,408	266	22,665	9,313	83,267	1,350	3,431,301
Nationale	1,301	.....	45,812	1,198	1	1,979	32,480	40,738	40,663	61,880	33,501	24,703	13,044	2,318	10,308	3,602	.....	4,362	31,570	274,530	130	50	8,034	.....	1,127	77	635,567
Imperial	1,445	.....	73,382	1,902	613	8,125	48,301	54,496	3,530	79,513	15,365	16,526	15,761	3,638	25,814	26,639	.....	4	7,282	430,700	.....	48	6,772	3,309	12,872	137	834,396
Mercantile	15	.....	1,384	44	16	2,576	5	1,010	1,121	451	22	17	30	.....	.....	577	1,225	.....	.....	7,206	.....	.....	303	.....	1,926	33	17,961
Total	17,927	1,586	830,211	42,260	4,604	308,216	670,365	814,442	522,333	1,324,933	291,255	199,576	519,554	354,572	431,505	227,280	411,816	37,018	144,932	4,960,022	336,479	1,392	142,082	34,172	225,302	4,369	12,889,485

(Thousands of dollars)

LIABILITIES

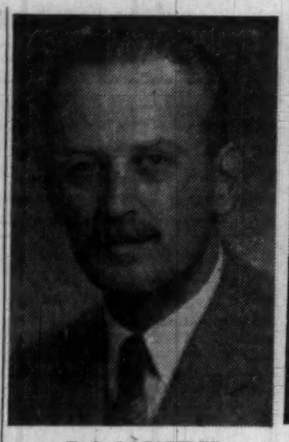
NAME OF BANK	Deposits by Govt. of Canada in Can. currency	Deposits by Canadian prov. govt. in Can. currency	Deposits by oth. banks in Can. currency	Deposits by other banks in curr. oth. than Can.	Personal savings dep. in Can.	Notice deposits in Can. curr.	Demand deposits in Can. currency	Other deposits in currencies oth. than Can.	Adv. from Bk. of Can. secured	Acceptances, guarantees and letters of credit	Other liabilities	Capital paid up	Rest account	Undivided profits at latest fiscal year end	Total Liabilities
	$	$	$	$	$	$	$	$	.....	$	$	$	$	$	$
Montreal	62,726	30,213	26,838	13,216	1,336,961	106,542	883,754	138,170	.....	36,830	1,066	48,000	93,000	2,134	2,793,402
Nova Scotia	39,111	5,189	5,874	48,727	573,063	32,897	315,227	101,130	.....	18,280	2,500	17,104	47,295	27	1,257,016
Toronto-Dominion	23,561	7,226	10,944	7,788	694,748	42,456	382,328	84,516	.....	14,695	1,032	19,717	43,275	855	1,295,198
Provinciale	11,009	2,078	916	4,900	159,674	11,474	65,226	264	.....	7,735	234	5,000	4,050	60	272,528
Commerce	49,538	29,254	18,199	34,532	1,091,180	80,405	690,195	223,964	.....	26,706	6,321	37,500	60,000	1,299	2,392,723
Royal	57,424	26,616	29,234	82,777	1,310,154	115,034	970,617	303,243	.....	32,287	10,438	50,106	120,694	918	3,431,301
Nationale	35,240	2,743	2,442	257	396,959	25,806	155,615	3,115	.....	1,127	242	7,000	14,000	877	635,567
Imperial	16,464	30,058	13,830	4,366	394,710	51,731	257,114	11,194	.....	13,872	1,857	11,500	26,500	2,153	834,396
Mercantile	95	.....	2,962	4,030	882	2,738	2,406	1,916	.....	1,936	9	1,800	400	1	17,961
Total	273,498	123,480	110,479	201,703	5,940,531	477,083	3,731,478	1,132,389	.....	225,503	23,923	194,307	434,958	8,453	12,889,485

METICULOUS CUSTOM-TAILORING

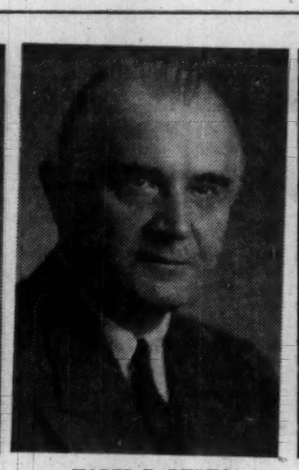
for correct fit, well groomed appearance and comfortable ease

Lloyd Bros.

69 WEST KING ST., TORONTO



T. O. LAZARIDES
Lazarides, Lount & Partners
(President)



KAREL R. RYBKA
Karel Rybka & Associates
(Vice-President)

A. M. LOUNT
Lazarides, Lount & Partners
(Treasurer)

J. H. C. CLARRY
McCarthy & McCarthy
(Secretary)

Foreign Exchange Rates

Noon Value in Canada
Week Ended Oct. 12, 1956

	U. S. $	U.K.
Mon.	.....	.....
Tue.	97 14/32	2.71 8/16
Wed.	97 13/32	2.71 5/16
Thu.	97 15/32	2.71 6/16
Fri.	97 15/32	2.71 6/16
Ave.	97 57/128	2.71 25/64

U. S. rate reported by bank of Canada.
U. K. bid rate reported by Toronto-Dominion Bank.

MACMILLAN & BLOEDEL LTD. during August converted 33 Class A shares into same number of Class B shares. Now 36,568 A shares and 5,248,970 B shares outstanding.

Satisfaction Since 1871

Your child should start piano lessons this Fall.
A WILLIS PIANO
assures a proper start.

WILLIS & CO. LIMITED
5579 Pare Street, Montreal 9, Que.

ANNOUNCEMENT

TRAILER ACCEPTANCE COMPANY LIMITED

R. J. TELFORD | E. L. GOODFELLOW | V. E. STANGER

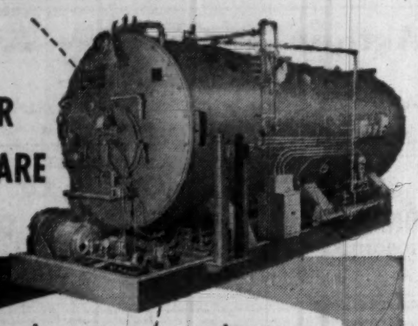
Officers of the recently formed Trailer Acceptance Company Limited have been announced by Robert J. Telford, president. The new company, a subsidiary of Fruehauf Trailer Company of Canada Limited, will offer financing for future sales of the parent company.

Robert J. Telford, president of Trailer Acceptance Company, has spent 35 years in the automotive industry since coming to Canada from Belfast, Ireland, in 1921. Before joining Fruehauf Trailer Company of Canada Limited in 1955 he was vice-president and general manager of Reo Motor Company of Canada since 1937.

E. L. Goodfellow, C.A., vice-president and treasurer of Trailer Acceptance Company was born in Sault Ste. Marie. A graduate of the University of Toronto he was treasurer of Phillips Electrical Company at Brockville, Ontario, from 1947 until early 1956.

Vincent E. Stanger, assistant secretary of Trailer Acceptance Company was born in Hamilton, Ontario and educated at McMaster University. Prior to joining Fruehauf, he was dealer relations manager for General Motors Acceptance Corporation in Toronto.

POWER TO SPARE



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VOLCANO
STARFIRE*
AUTOMATIC BOILER

A completely self-contained steam generating unit
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- Any thick, level concrete floor provides adequate support!
- Available with capacity from 10 H.P. to 500 H.P. . . . for use with light oil, heavy oil, gas or oil-gas combinations . . . all pressures . . . steam or water . . . Made in Canada.

*REG. T.M.

See your nearest agent or write to:

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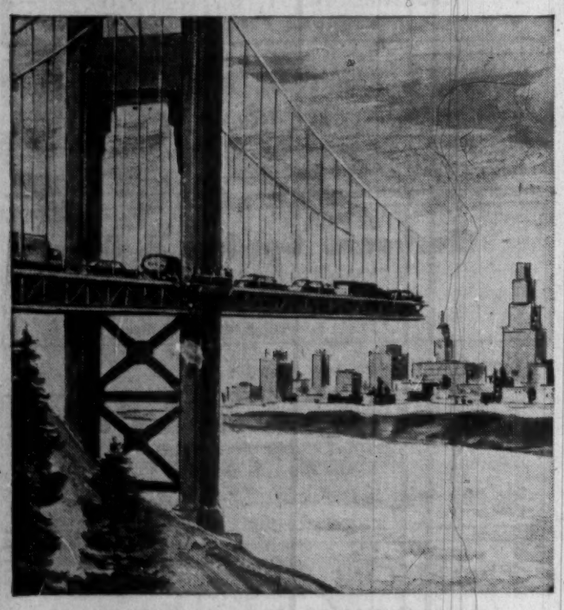
8635 St. Lawrence Blvd., Montreal, P.Q.
Canada's leading manufacturers of automatic heating equipment.

Branch Offices: Toronto, Ont., Quebec, P.Q.
Agents in all principal cities.



You'll never get across . . . with only ½ a bridge!

And so it is with many pieces of Direct Mail. Regardless of the time, thought and money expended, it will all prove useless unless your message goes *all the way across* . . . gets to the man you want to reach. How can this be done successfully? With Envelopes, of course! An Envelope is the bridge filling the gap between the man and your message! An Envelope, personally addressed, protectively carries your message *directly* to the other side.

Envelopes increase prestige . . . add a personal touch . . . arouse curiosity. Uncovered mailing pieces may be tossed aside without even a passing glance but . . . how often do *you* throw away an Envelope . . . unopened?

Envelopes pay for themselves many times over when your mailings reach their destination with far greater success!

WHENEVER YOU USE DIRECT MAIL . . . ALWAYS ENCLOSE IT IN AN ENVELOPE FOR BEST RESULTS!

ENVELOPE MAKERS OF CANADA

"An organization devoted to the production of envelopes—well designed and well-made."

KEEP DEVELOPMENT AT HOME'

Consulting Engineers Band for Bigger Jobs

A major challenge for a bigger share for Canadian engineers in this country's industrial development has been made by a group of Canadian consulting engineers.

Under the name of **Federated Consultants Ltd.,** 12 consulting engineering firms and individual consultants have formed a new organization providing services in every important engineering field, and able to match design, field and other forces with the biggest engineering organizations at home or abroad.

Though the organization was established as a private company less than a year ago, it already has two multi-million dollar projects in hand in Canada, and its officers have been called in as consultants on various occasions by foreign governments.

With major interests already established in the manufacturing and power fields, Federated is already moving into other engineering spheres including the billion dollar schemes across Canada now in hand or planned for pipelines and development of the chemical industry.

Since incorporation, Federated has been growing steadily until now it constitutes an international organization, both in structure and scope.

The new organization has four member firms and eight other firms or individuals now acting as consultants under its banner and is still expanding. Its aim is a continuing policy of acquiring new member firms and consultants to widen still further its range of services. Negotiations are currently in progress to that end with a number of specialists in various engineering fields.

This is the pattern of organization as presently constituted under Federated Consultants:

Member Firms

Hunting Technical & Exploration Services Ltd. One of the group of companies headed by **Photographic Survey Corp.** Within Federated, its main function is preparation of engineering evaluations and reports over a wide field including natural resources, industrial, economic and development surveys and statistical evaluations.

T. O. Lazarides, Lount & Partners. Formed in 1953, the firm has carried out a considerable volume of work in the civil and structural fields for dominion, provincial and municipal government agencies and private industry in various parts of Canada. It is also known for considerable research into new methods of structural design and construction.

Karel Rybka & Associates. Covers mechanical and electrical engineering, and has been engaged across Canada in work for dominion and provincial government and other agencies and private clients.

Miller, Naismith. Negotiations for this firm to join Federated as a member firm were concluded last week. It will provide services covering manufacturing engineering in all phases including the specialized field of automation.

Consultants

Gordon S. Adamson, past president of Ontario Association of Architects and life member of the Association of Canadian Industrial Engineers, is consulting architect for Federated.

Stanley R. Frost, formerly liaison engineer, Ontario Department of Planning and Development, assigned to St. Lawrence Seaway Development, was works engineer for **Quebec Iron & Titanium Corp.,** and development engineer with the **American Cyanamid Co.** before that, is consultant to Federated on matters relating to heavy industrial engineering.

R. A. Hanright & Co., St. Catharines, Ont., which has an extensive practice in the steam, gas-turbine and diesel electric fields, acts as consultants on thermal power engineering and various aspects of heavy industry.

Jens C. Holm, director of engineering of **Marquette Cement Manufacturing Co.** for many years, is consultant on matters relating to cement production and cement plant engineering.

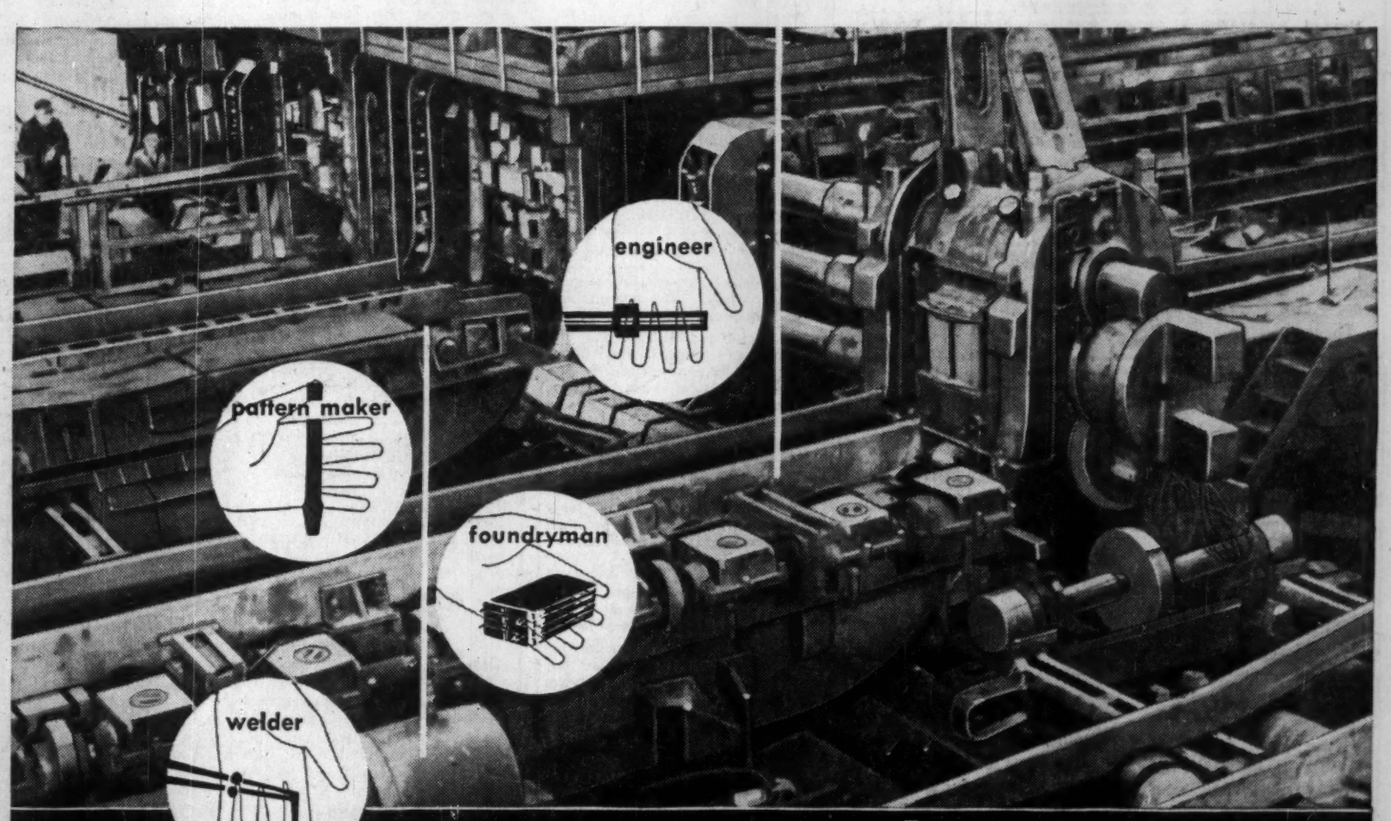
G. Ross Lord, Professor of Mechanical Engineering in charge of hydraulics, University of Toronto, and consultant to the Ontario Department of Planning and Development and several other government and private agencies, is consultant to Federated on projects involving hydraulics and fluid mechanics engineering.

H. L. Roblin, of **Stanley, Grimble, Roblin Ltd.,** consulting engineers, Edmonton, formerly engineer in charge of all CNR lines in Alberta, is consultant on railway location and design problems.

Norman D. Wilson, expert in the public transit field who has directed major traffic studies throughout Canada and abroad, is a specialist consultant to Federated on matters pertaining to

(Continued on page 38)

D. N. KENDALL
Hunting Technical & Exploration Services Ltd.
(Director)



custom built machinery is a task for many hands.

. . . they work best where they work together.

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From pumps to complete rolling mills, hundreds of machines built by Canada Iron are proving their worth today in plants across Canada. They all have one thing in common — dependable quality. This assurance of quality will be yours on your next custom building job if you send your blueprints to Canada Iron.

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Behind Flowering Lamp-Posts, B.C.'s Big Island Is Booming

By LYN HARRINGTON

Salmon, logging and Victoria's flowering lamp-posts long have represented Vancouver Island in most minds.

But the 282-mile island tucked into B.C.'s ragged coastline is sharing in the gaudy industrial expansion of the rest of the province.

A glittering patina of prosperity lies over the island towns, clearly evident in new buildings, well-stocked stores, improved tourist facilities. Vancouver Island is rousing from its lavender-scented dream.

Even the population has edged forward slightly. It has nearly 19% of the province's total, though only 4% of its area. B. C. has steadily forged ahead in population, reaching its first million in 1946. It continues to be Canada's most rapidly growing province.

Increased population has brought new industries, new demands on electrical power, a crying need for skilled workers. Any traveler can see this former pensioner's paradise is changing.

The Island Highway sweeping north along the coast from Victoria to Campbell River and beyond, is being widened and straightened. The immense provincial highway program includes three new roads being surveyed to the Island's rugged and rainy west coast.

This spring, a new car ferry was put in service between Crofton and Saltspring Island, practically a Victoria suburb.

The gulf islands also have new daily connections with the mainland. And planes roar overhead in increased traffic between Vancouver and Victoria.

These improved communications give residents and tourists access to a remarkable playground of 137 square miles. The gulf islands are justifiably famed as a resort area. Many of Victoria's tourists who take the half-day cruise among them return for longer visits, or even to settle.

The tourist will appreciate the remarkable development of motels, especially in the vicinity of Victoria. While new hotel-building lags, motels have sprung up like mushrooms after a rain. They have sufficient competition to keep standards high. The season here is the longest in Canada.

One change that swells the number of tourists and keeps them for longer periods is the realistic attitude toward liquor. Wines, beer and hard liquor may now be served with meals in restaurants with sufficiently high standards of service and cleanliness — even in conservative Victoria. British Columbia's former liquor laws irked tourists from the U. S. and overseas, accustomed to a more relaxed atmosphere.

Sagging Sweaters

With full employment at top wages, handicrafts have almost slid out of sight on the Island.

Even the famous Cowichan Indian sweaters sagged for a time. But an improvement in the yarn has resulted in larger orders than ever at better prices to wool-growers and to the 400-odd Indian women knitters who carry on the cottage industry.

The wool is now carded and spun by machine, eliminating the sometimes-lumpy yarn produced by poor spinners. The sweater's properties for warmth and shedding rain are not altered, but the appearance is considerably enhanced.

Home and business construction has continued to an astounding pace.

Victoria has a capital improvement scheme in hand, a face-lifting in preparation for its 1958 Centennial. A spanking new post office and customs house was opened recently, while the old stone block building facing the inner harbor is being re-vamped as a customs warehouse. Building permits in 1955 in Victoria alone amounted to more than $18 million.

New zoning regulations have resulted in enlargement of existing industries — bottling works, oil docks, two plywood plants, paint factory and sawmill — and a number of new industries in Greater Victoria.

One of these, established by a Norwegian immigrant, manufactures a special insulating type of underwear, a string mesh that has found wide acceptance amongst athletes and men in heavy industry.

Shipbuilding at Esquimalt near Victoria accounted for another quarter-million dollars when Yarrows added a plate shop and machinery erection shed equipped with a 25-ton crane.

Up at the top of Saanich, the Fairey Aviation Co. has purchased a second hangar at Patricia Bay Airport, to double the facilities just completed. **Vancouver Island Helicopters**, a new concern, is kept busy on a contract with the Government.

Mining has not made any huge strides on Vancouver Island, indeed has shrunk in the gold- and coal-mining. But low-grade iron ore is being mined west of Campbell River and on Texada Island. Japanese ships call regularly for the weighty ore.

Copper is being mined in the Duncan area. Exploration goes on at the south of the island and around Quatsino Sound.

Just out from Victoria, below the scenic Malahat Drive is the **Bamberton Cement** plant, whose dust is the bane of tourists bent on photographing the magnificent panorama of gulf and islands. A $4 million plant enlargement is in process, which will increase production of Portland cement to three million bbl. annually.

Big Pulp Growth

Huge sums are involved in new plants for the pulpwood industry and additions to older mills.

B. C. Forest Products is just completing a huge new sulphate pulpmill costing $36 million, at Crofton, near Duncan. Its output will be 425 tons daily and it will employ 300 with an annual payroll of $1,500,000. The plant goes into operation this fall. **Harmac**, just outside Nanaimo, is putting almost as much into the addition of a woodroom to utilize cordwood for pulp.

More ambitious is the **MacMillan and Bloedel** expansion at Port Alberni, a matter of $63 million. It will have a capacity of 600 tons a day. A new paper and paperboard machine is being installed now to turn out 180 tons a day early next spring. At the same time, pulp capacity is being raised to 500 tons a day. No wonder Port Alberni's population has doubled in five years.

Alaska Pine & Cellulose is extending operations by a cool $8 million at its Port Alice plant. **Crown Zellerbach** has expanded its mill at Duncan Bay, near Campbell River, to the tune of $28.5 million. Most of that went into a new kraft mill with 500 tons daily output; some into a bleaching plant and new sawmill. The newsprint mill gets a new $7½ million machine to go into operation next year.

Sawmill operators have been busier than the proverbial beaver. Although demand from Britain fell off due to dollar shortages, the vast building expansion across this country has steadied the market. Plywood factories have increased their output, and raised their standards until today's product bears little resemblance to the early blistering plywood.

All these projects require power, of which Vancouver Island has only 4% of the province's potential. The problem is being met in several ways.

B. C. Electric, a private utility company, brought an underwater cable from the mainland. Nineteen miles long, the nitrogen-insulated cable reaches under the Gulf of Georgia before island-hopping to Victoria with 160,000 hp. The power lines swing across some of the Gulf Islands, and the cable-laying was completed in August, a $5 million investment.

Demand Grows

Several years ago, the **B. C. Power Commission**, the public utility which supplies most of the province's electricity, dammed Campbell River above magnificent Elk Fals. The John Hart Power development was installed to generate 168,000 hp to meet most of the Island's needs. But all this power is spoken for now.

Campbell River is the Island's only economical source of hydro-electric power. An earth dam at Ladore Falls, originally meant to provide storage for the John Hart development, is getting a $10 million powerplant. The first of three 35,000 hp generating units should be in operation late this fall, with another by the end of the year, a third next year.

A far bigger project is the damming of Upper Campbell Lake.

The B. C. Power Commission is spending $23 million there for combined storage and generation development.

Before the dam goes in, an immense clearing operaton must be carried out. The timber is being removed for sale, the stumps hauled out and burned "to the last ash," so no loose roots can clog the turbines.

A 12-mile public road is being carved out of the mountains providing access at last to beautiful Buttle Lake, partly in Strathcona Park.

Conservationists protest that the scenery and the fly-fishing will be ruined by the higher water level resulting from the project. But this is an overstatement, since Buttle Lake will be raised only 19 ft., hardly noticeable in its massive mountain bowl. Restrictions oblige the Commission to provide boat-landings, beach sites and re-stock the resulting 31-mile lake.

The project will provide an additional 42,000 hp at the John Hart powerhouse by the end of 1957, with second and third units to be installed later.

This future power, too, is already earmarked. Power companies can't keep up with Island demands, and additional sources are urgently sought. It's suggested that the headwaters of the Salmon River may be diverted by canal to flow into the Campbell River system, plus possibly the Heber and Quinsam Rivers.

Similarly the rivers in the Alberni Valley are being studied.

Linking Ash River-Great Central Lake-Sproat River can produce an additional 80,000 hp at a cost of around $20 million. At the same time, the Power Commission has survey parties engaged in a four-month exploration of the mighty Homathko River on the nearby mainland.

A series of hydro developments on the river could produce around a million hp. It can't come too soon for Vancouver Island.

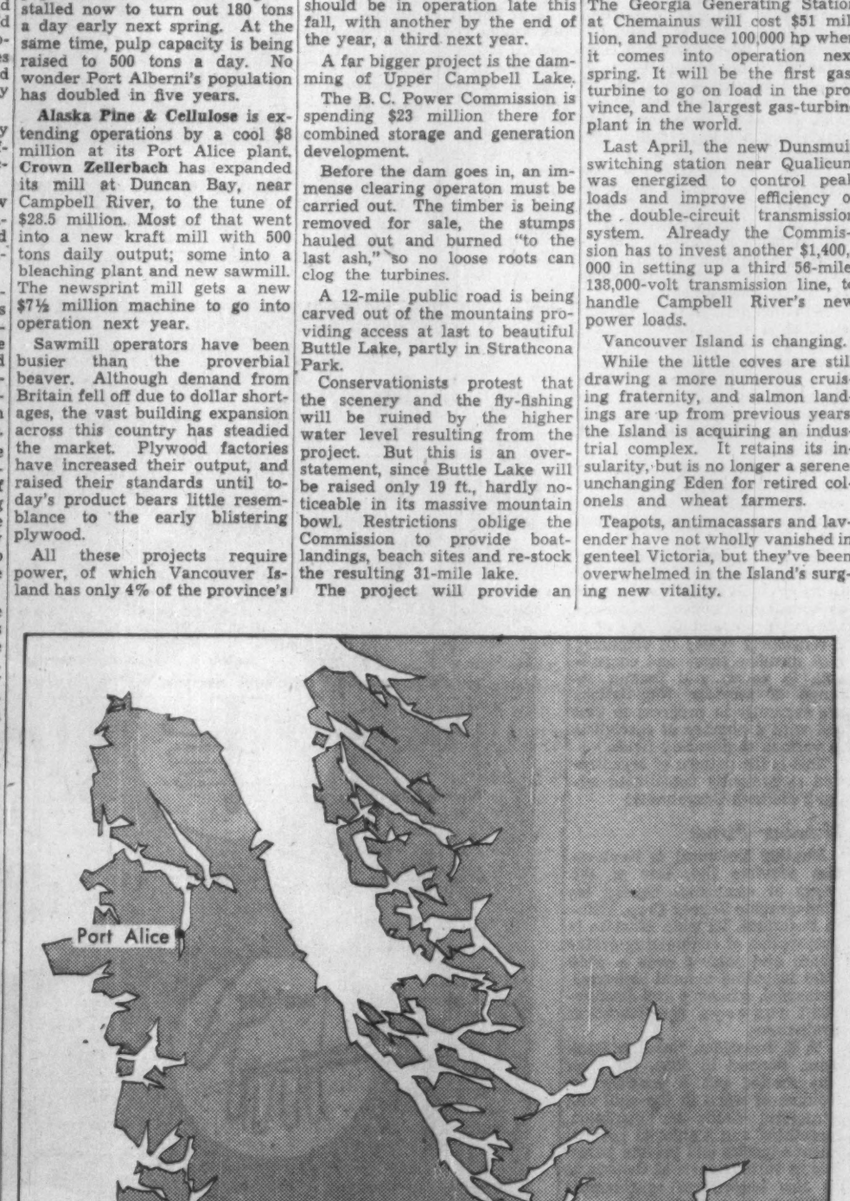
In fact, the Commission has had to import a standby plant to tide the Island over until further hydro energy becomes available. The Georgia Generating Station at Chemainus will cost $51 million, and produce 100,000 hp when it comes into operation next spring. It will be the first gas-turbine to go on load in the province, and the largest gas-turbine plant in the world.

Last April, the new Dunsmuir switching station near Qualicum was energized to control peak loads and improve efficiency of the double-circuit transmission system. Already the Commission has to invest another $1,400,000 in setting up a third 56-mile, 138,000-volt transmission line, to handle Campbell River's new power loads.

Vancouver Island is changing.

While the little coves are still drawing a more numerous cruising fraternity, and salmon landings are up from previous years, the Island is acquiring an industrial complex. It retains its insularity, but is no longer a serene, unchanging Eden for retired colonels and wheat farmers.

Teapots, antimacassars and lavender have not wholly vanished in genteel Victoria, but they've been overwhelmed in the Island's surging new vitality.



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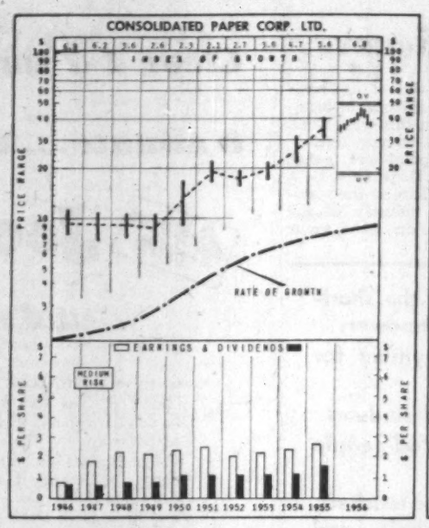
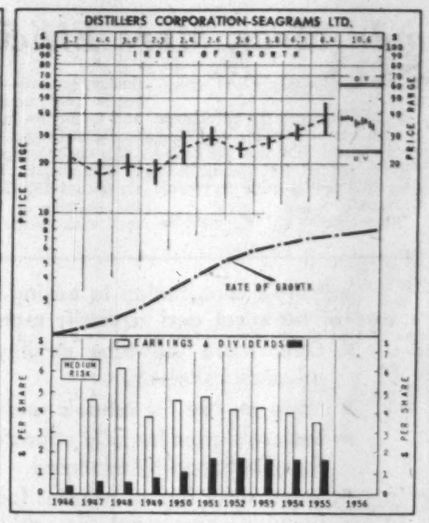
Selected Growth Stocks — Quarterly Review — By NESTOR

The Financial Post's exclusive series of Selected Growth Stocks was chosen by one of the continent's most prominent and successful investment advisers. The reasons for choice shown below the accompanying charts were those given when stocks were chosen in January 1953. Each will be reviewed quarterly. Publication of this series in The Post does not constitute a recommendation to buy these stocks.



CONSOLIDATED PAPER is one of the largest producers in Canada of newsprint paper, and pulp and paper products; also produces plastics and other materials or byproducts. Markets are in the United States, Canada, Great Britain, Eire, South Africa, Australia, New Zealand, the West Indies, India and South America, where demand for paper products is rising. Earnings have shown gradual uptrend with further growth believed ahead.



DISTILLERS CORP-SEAGRAMS is the largest distiller in Canada as well as a leader in the industry in the United States, where over 90% of its business is done. Company has been characterized by aggressive salesmanship and sentitivity to changing public tastes. Company is also engaged in development of oil, and this division could eventually make a substantial contribution to profits. Subject to cyclical conditions within the industry earnings have shown steady expansion as has net worth. Emphasis on research should keep this firm a leader in its field.

Cons. Paper

Consolidated Paper, trading at recent $38¼ is 101% above UV Level ($19), could rise 28% to OV Level ($49). Price is 14.3 times 1955 earnings of $2.68 a share. Yield on indicated dividend rate of $1.70 is 4.65%. Range in 1956 is high of $47 in July and low of $33½ in January this year.

Net profit in nine months ended Sept. 30 was $2.33 a share, up 23% from $1.89 in January-September, 1955.

Company progressing on program to convert Belgo mill to high yield sulphite pulp process. Program expected to be completed by year's end.

New enlarged and improved research facilities at Grand-Mère are under construction. Steel is due in November, and completion expected for spring 1957 occupancy.

Annual report indicates that company plans to increase production by 75,000 tons this year and it is understood this is within easy reach. About 40,000 tons were lost in 1955 due to a strike. Company, like others in newsprint industry, is operating at about 102% of rated capacity.

Demand continues strong, with no sign of a let-up in sight. New capacity coming in both U. S. and Canada indicates demand and supply may be about in balance by year's end.

Current belief is that export business abroad will assume increased importance in future. It should take up the slack if there is over-capacity in 1957 or 1958, which appears to be a strong likelihood.

A newly incorporated mining subsidiary is continuing active exploration on company's limits.

Consolidated will increase capacity by 55,000 tons annually over the next two or three years (its capacity advanced 55,000 tons last year). Current capital expenditure program amounts to $16 million. Present plans call for capital outlay of a further $30 million by 1959. Current expansion is understood to be ahead of schedule.

How To Read Stock Charts

INDEX OF GROWTH: The rate at which the value of the equity behind the stock is doubling as determined by the growth rate at which it entered the year. A figure of 5.6 for the present year would indicate that at its current growth rate the equity value is doubling every 5.6 years.

PRICE RANGE: The annual high, low and mean price. Monthly ranges for the current year.

UNDERVALUATION AND OVERVALUATION PRICE LEVELS: Shown by the narrow horizontal lines above and below the stock's price range indicating price at which the particular stock is adjusted as underestimating or overestimating its future rate of growth. A stock showing a fast-growth rate will sometimes anticipate growth by two or three years. In this case it may not be so attractive a purchase relatively as some other fast-growing stock that is not anticipating its growth beyond the immediate present. Other factors such as rate of growth and investment quality will also enter into the comparison an investor will want to make.

Without these UV and OV levels, a current quotation of say, 55 or 75 would carry no significance regarding long-range value. The UV/OV levels also permit judgment as between one stock and another. They are not designated points of purchase or sale nor do they attempt to show what will be a stock's bottom or top figure in any given year.

RATE OF GROWTH: The rate as based on Nestor's tests at which the company is showing underlying or long-term growth. This will determine the price trend of the company's common stock over a period of years and in most instances the trend of dividend payments.

**Background and principles behind the selection by Nestor were discussed in a special article in The Financial Post, Jan. 10, 1953. A limited number of reprints are available on request.*

Seagrams

Distillers Corp. - Seagrams trading at recent $33½ is 44% above UV level ($24). Would need to rise 79% to reach OV level ($60). Price is 9.4 times 1955 earnings of $3.54 (U. S.) and yield on indicated $1.70 dividend is 5.07%. Stock has traded at a high of $39¾ and a low of $33 to date this year.

Net profit of $2.87 a share in nine months ended April 30 was 5.4% higher than corresponding 1954-55 net of $2.72.

Sales are understood to be higher this year in both U. S. and Canada. Higher labor, grain, advertising costs and higher bottle and carton prices are affecting earnings.

Canadian price of company liquor was raised Oct. 1. Amount of increase was not disclosed although it is understood to have been "small." Provincial liquor commissions will determine whether to pass along increase to consumer and it is understood at least one, Quebec, has boosted its price.

In the U. S., price increase is effective Nov. 1. The increase is the first price boost at the distillery level since 1950 and third since 1939.

The industry is extremely competitive for sales, with promotion costs edging up. Situation continues to be characterized by ample stocks, productive capacity still in excess of requirements, and production about equal to consumption.

Oil investments of company are attracting interest. Exploration in U. S. oil and gas projects continue, and $12 to $15 million is to be spent during current fiscal.

Five-Year Export Contract Signed By Eastern Mining

By W. L. DACK

A nickel export market worth $15 million a year or more has been assured a new Canadian smelter-refinery company.

Total nickel output from the planned $35 million Chicoutimi, Que., operation of **Eastern Mining & Smelting Corp.** has now been contracted for, The Financial Post is informed.

Marketing of the entire initial 15 million lb. yearly production has now been arranged on a firm five-year contract basis.

Ten million lb. will go to private interests in the U.S. The remainder will go to Swedish and other European interests.

In all cases, contract prices are "substantially above" the official 34.5c lb. nickel price, are fixed for the full five year contract duration.

Signing of the long-term sales contract has been a major factor in speeding up financing arrangements. It will take an estimated $35 million to finance the entire Chicoutimi operation — including smelter, refinery, acid plant and power facilities — to the production stage. Some $5.5 million of junior financing has already been provided by the Knight - Streit - Hackett interests and arrangements for the senior financing through institutions is now nearing completion. No public issue is planned at this time.

The nickel section of Eastern Mining's Chicoutimi refinery - smelter will start producing in first quarter of 1958; the copper section in the last quarter of 1957.

Initial production will be at the rate of 100 million lb. of blister copper and 15 million lb. of nickel annually. To attain this, the refinery-smelter will be processing 650 tons of copper concentrates and 252 tons of nickel concentrates daily.

Important by-products will include some 180 tons daily of liquid sulphur dioxide, around 400 tons of sulphuric acid and varying amounts of cobalt and precious metals.

Plans are to market the liquid sulphur dioxide to pulp and paper mills in the area. Probably the greatest concentration of pulp and paper mills in Canada are within a 65-mile radius of Chicoutimi. The availability of sulphuric acid in the area could be an important incentive to establishment of consuming industries in the Chicoutimi section.

The copper and nickel for first operating stages will come from company's own Gordon Lake mine and from mines controlled by the parent company, **Mogul Mining Corp.**

As for nickel this will include —**Gordon Lake** (formerly **Quebec Nickel**), **North Rankin, Eastern Metals, Arcadia Nickel.** possibly **Norpax Oils & Mines, Temagami Mining** and several other custom shippers. Copper will come from **Eastern Metals, Coldstream Copper, Irish Copper** in Eire, **Merrill Island, Harvey Hill, Consolidated Hallilwell** in Haiti.

Contracts expected to be completed soon for treatment of bulk of the copper production from the big Chibougamau camp could just about double company's copper output, would call for a virtual doubling of copper smelter capacity. The smelter design has been laid out for quick boosting of capacity to around 200 million lb. annually as new mines come into production.

Eastern Mining's Chicoutimi plant setup is unique in Canadian refining and smelting techniques since it combines the advantages of both the flash smelting and ammonia-leach refining processes.

International Nickel, for instance, has developed a successful flash smelting technique at its Copper Cliff operation and **Sherritt-Gordon Mines** has been the first successful Canadian operator of the ammonia-leach process at its Fort Saskatchewan chemical - metallurgical plant. Eastern Mining will dovetail both processes into the one operation.

Since Eastern Mining will have to handle various ores — not the generally uniform ores of Inco and Sherritt — provision had to be made to reduce these ores to uniform grade before entering on the ammonia-leach refining process.

This is done in the flash smelting furnace stage where the varying iron and sulphur contents of the concentrates are sharply reduced and the concentrates converted to matte (Sherritt feeds the concentrates directly into the ammonia-leach process).

Besides allowing lower capital requirements and operating costs, the combined processes are expected to provide maximum yields of nickel, copper, cobalt and the platinum group metals from available concentrates.

Contracts have already been set for all excavation, grading, foundation work. Bids have now been invited for the sulphur acid plant and related installations. On Nov. 1, bids are due on all major equipment. Construction of the company's own $5 million powerplant on the Chicoutimi River right on the plant site is already well advanced. Completion is scheduled for next May.

ABITIBI POWER & PAPER CO. has issued an additional 308,136 common shares as result of convertible feature of recently issued $15 million 4½% convertible debentures. Now 4,493,218 common shares outstanding.

DOMINION ELECTROHOME INDUSTRIES LTD. has issued 180 shares at $9¾ each under options granted to officers and senior employees. Now 100,180 shares outstanding.

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Streamline Education?

More Cash Would Mean More Efficiency

By J. N. T. BULMAN

I want to invite your attention to the much-discussed problem of Canada's scientific and technical brainpower crisis for three main reasons:

- In my view it is the most urgent of all the problems facing industry and the nation today.
- The subject at last appears to be getting the prominence it deserves.
- The proposals I will advance are the outcome of careful study and research by the Canadian Manufacturers' Association, and are intended as positive and constructive aids to the solution of the problem.

Leaders of industry, prominent educators and leading national newspapers have led the way in focussing the attention of thinking Canadians on the existence of the problem.

On the other hand, there are those who are inclined to feel that the shortage of engineers, scientists and technicians of all kinds is being exaggerated. As to that, I would say this:

The well-being of millions of Canadians is bound up with the prosperity and development of Canada's leading industry—manufacturing. If our manufacturing capacity sinks, the standard of living of the majority of Canadians will sink with it.

How Serious?

There may be room for genuine differences of opinions as to how serious the immediate problem is in Canada. However, it is infinitely more dangerous to minimize it than to exaggerate it.

Although Canada is today in seventh place among the manufacturing nations of the world, our population of hardly 16 million is far and away the smallest of the first seven. More than any other manufacturing country, then, Canada must make maximum possible use of her available manpower.

This means very much more than keeping a large part of the total population at work. "Maximum possible use" in terms of the demands of modern industry means that a high proportion of the labor force must possess technical skills of a high order.

The labor force itself must be rejuvenated annually by a steady flow of new recruits who have knowledge of the very latest technological processes and the trained intelligence to apply that knowledge to specialized operations.

In Canada today the percentage of high school students who elect for technical studies is far below what is needed, but among those who do there is quite incredible wastage.

What can we do? We must begin, logically, with the student himself.

We must be thinking now of the young men who will be coming into industry in 1960 and the years immediately following.

First, above everything else, an increasing number must be made to realize that a minimum of four years' education at the secondary school level ending in graduation is not only the best but the indispensable passport to later success in industry. They must be made to want to continue their studies to this point.

Again and again, as the student builds up to the point where he must make his decision as to a career, the advantages of an advanced and fully-rounded education must be stressed.

The educators, the men of industry, parents—all of us—have got to "sell" the students of today and tomorrow in this way. Time is decidedly not on our side.

An important point here, is that of differentials. There must be a significant difference in the starting salaries in industry of the men who, on the one hand, enter with a background of completed vocational training and those who, thinking to get a head start, decide that they can carve out a better future for themselves by making a premature switch from theory to practice.

Assuming that we have some success in making many more students want to secure the highest possible academic qualifications before they go into industry, how do we make it possible for all who want to, to do so?

The financial pressures on many students may be such that they may not feel able to postpone full-salaried employment for as long as four years. Their families may lack necessary financial reserves to see them through such a period.

One obvious way in which to meet this difficulty is by a sharp increase in the number of grants, scholarships and bursaries awarded by industry for promising students who are in this position.

There is another way in which to help greatly—perhaps, this is the best way—and that is part-time employment of advanced students by individual companies, throughout the summer and at other times during the year.

This would satisfy the student's urge for more practical training as well as put money in his pocket. And it would provide the company with an opportunity to assess individual capabilities, prepare selected students for permanent employment at the end of their studies.

Elsewhere, industry can materially assist by encouraging the establishment of more vocational schools or vocational classes in existing schools in small centres.

Educational opportunities should not only be the prerogative of the city and town-raised student.

In this connection, every effort should be made to influence provincial governments to establish pre-engineering and junior colleges in strategic centres to avoid imposing impossible burdens on local parents.

What of the educators? One of their major responsibilities is obviously that of finding out the basic reasons for the high "wastage" in the number of students who elect for technical training. They must discover ways and means of reducing it.

Students who are less than serious in their intentions or who lack the diligence and concentrated application necessary to stay the course must be weeded out earlier than hitherto.

We have neither the teachers nor the classroom space to spare for them. Their places should be taken by those who have shown an aptitude for technical subjects but who have been misguided into other fields of educational endeavour.

Industry's contribution to easing the shortage of technical and scientific manpower:

- **Offer more part-time employment for advanced students.**
- **More money for schools and students.**
- **Better salaries for fully educated people than for the partly educated.**
- **Support for higher salaries for teachers, heavier enrolment in schools and colleges.**

That's how J. N. T. Bulman, president of Canadian Manufacturers' Association, sees it. Here are details from his speech in St. John's.

Consulting Engineers Band for Bigger Jobs

(Continued from page 35)

public transit and traffic studies.

Clyde Wyant & Associates, pipeline consultants of Tulsa, Oklahoma, who have taken offices in FCL's Toronto headquarters, will act as consultants on matters relating to pipeline engineering practice, and will train personnel of other FCL firms in pipeline engineering where necessary.

Hydro Division

A separate permanent division has been set up within Federated to deal with hydro-electric power projects. Heading this division is E. T. Ireson of T. O. Lazarides, Lount & Partners, and formerly generation engineer for the Hydro-Electric Power Commission of Ontario.

In the division, hydraulic resources and location surveys are the responsibility of Hunting Technical & Exploration Services Ltd., and hydraulic model studies are the responsibility of G. R. Lord. Civil and structural engineering is carried out by T. O. Lazarides, Lount & Partners, and mechanical and electrical engineering comes under R. A. Hanright & Co.

Private Company

Federated Consultants was established as a private company incorporated under Dominion Charter in November last year, stock being owned entirely by member firms.

The idea for so comprehensive a Canadian organization which would enlist as consultants qualified engineers from throughout the world, originated with the three founder firms—Lazarides, Lount & Partners; Rybka & Associates; and Hunting Technical & Exploration Services. During the initial organization, a great deal of advice and assistance was given to the group by J. R. Montague, last year's president of the Ontario Association of Professional Engineers.

Federated has two main features which set it apart from various other engineering groups already in existence:

- Within the framework of Federated, all member firms and consultants retain complete individuality and private practices while contributing skills, experience and personnel to projects undertaken by the organization.
- To avoid services overlapping, each phase or sector of engineering is represented by only one firm or consultant.

This has made it possible for the new organization to secure the services of eminent consultants in various parts of the world. It represents a reversal of a trend of recent years which has been towards Canadian engineers working in association with large engineering corporations from abroad.

Federated has now acquired its own building on Davenport Road, Toronto and there three of the member firms and a number of the consultants have established their offices.

Latest project for Federated is an engineering study and report at Hamilton, Ont., on what could be the start of Canada's biggest-ever fuel-electric generating station. Mr. G. D. Floyd, assistant general manager of the Hydro-Electric Commission of Ontario, told The Post that Federated was presently engaged on behalf of Hydro on studies which would include the estimated cost and feasibility of reclaiming land now under water beside Hamilton Harbor to provide a large enough site for a major steam power station.

Hydro has not yet decided to go ahead with the project at Hamilton and a governing factor in that decision will be the FCL report. But Hydro Chairman Dr. Richard L. Hearn has already stated it is the logical site for Ontario's next big power project to meet surging demand.

The land under study for possible reclamation represents an area of some 70 acres and adjoins about 40 acres owned by Hydro. The work is going forward in close collaboration with Hamilton Harbor Commission and, if the project is eventually approved, it could involve wharves and various industrial developments as well as the power station which would eventually have between a million and 1.5 million kilowatts capacity.

Federated is also currently engaged on the design and supervision of construction of the $16.5 million installations by Lake Ontario Portland Cement Co. at Picton, Ont. This will include a 1.8 million bbls. a year Portland cement plant, 600,000 tons a year commercial aggregate plant, a dock on the 32-ft.-deep St. Lawrence Seaway waterfront, and a halfmile spur to the main CNR line at Picton. Also included are storage, bagging and shipping facilities at Toronto and Rochester, N.Y.

Construction started last July on the site, and a task force of design engineers, now completing the design stage, occupy a floor in the FCL building in Toronto. Federated shares responsibilities on the project with **Burns & Roe of Michigan Inc.** whose engineers are also working in the FCL building.

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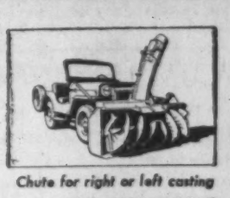

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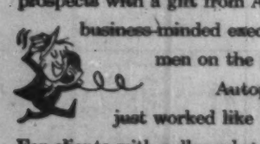

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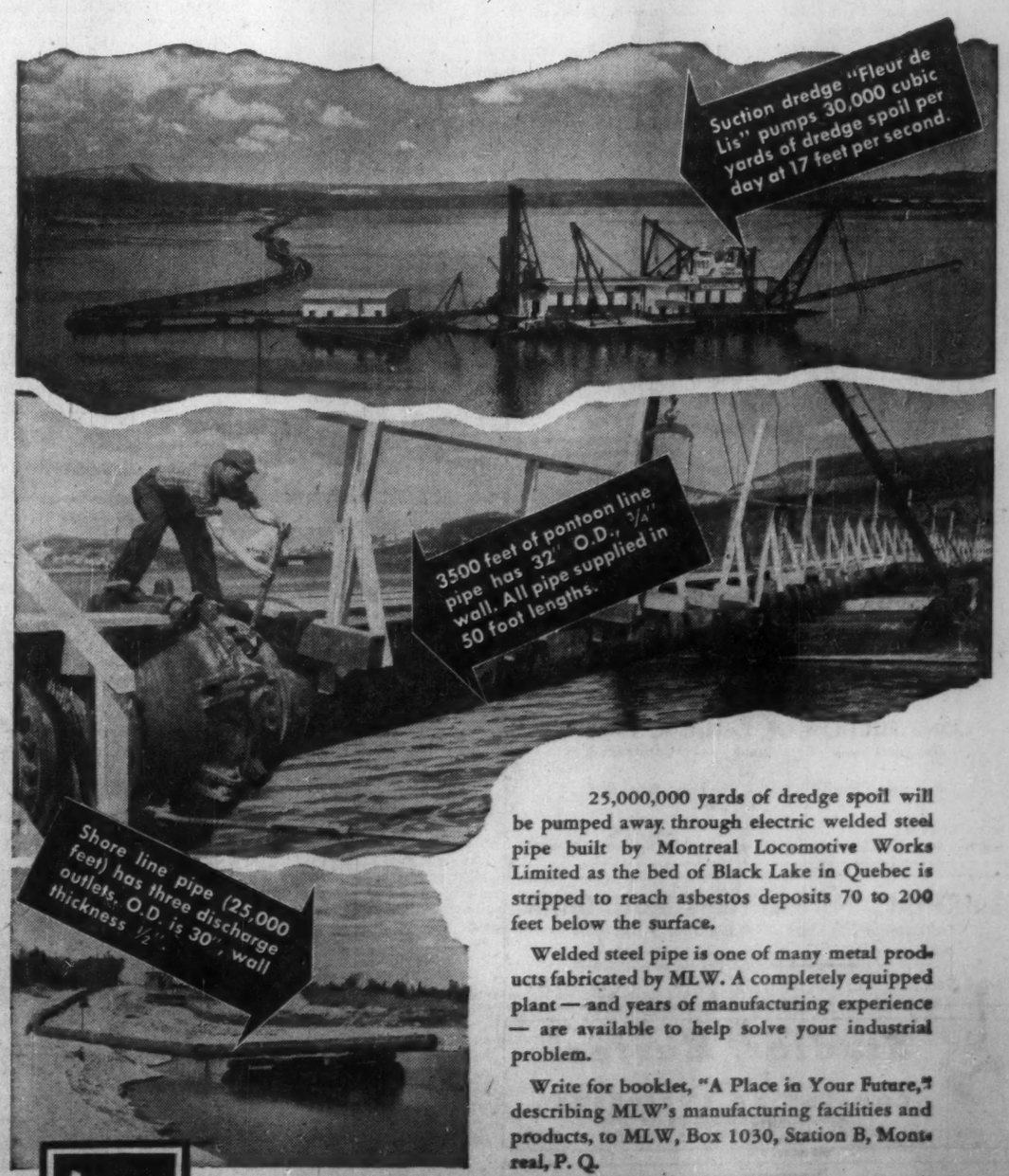
MLW builds welded steel pipe for huge dredging project



25,000,000 yards of dredge spoil will be pumped away through electric welded steel pipe built by Montreal Locomotive Works Limited as the bed of Black Lake in Quebec is stripped to reach asbestos deposits 70 to 200 feet below the surface.

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The President and Board of Directors of Canada Health and Accident Assurance Corporation are pleased to announce the appointment of O. J. Breidenbaugh to the position of Managing Director.

Mr. Breidenbaugh, a past Executive Secretary of the International Association of Accident and Health Underwriters, has spent many years as Management Consultant in the insurance field.

A graduate of both Butler and Indiana Universities, Mr. Breidenbaugh assumes responsibility for the Company's operations in Canada.

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The touring display will be sponsored by Canada's national Design Centre, offshoot of the National Gallery's eight-year-old Industrial Design Division.

This week the Design Centre moved into a new, if temporary home and Governor-General Vincent Massey was guest of honor at the house-warming, had the first look at the display, did the official opening.

Attending was Sir Gordon Russell, director of the U.K.'s Council of Industrial Design.

Two years from now, approximately, the Design Centre will move again — into the new National Gallery to be built on the site of the Centre's old home.

The move, like this one, will call attention to the work of the Centre, how far it has come since its postwar beginning, how much it has accomplished with a modest budget.

This year, for example, the Centre will:

1. Hold one-a-month displays of blossoming Canadian industrial art.

2. Send exhibits throughout various sections of Canada.

A toy exhibition is now on tour in Western Canada. It's sponsored with the help of the Toy Testing Committee of the Canadian Association of Consumers and the Citizens Committee on Children.

Street Furniture

An exhibition of street furniture — new lampposts, park benches, bus kiosks (and streets with no overhanging wires and utility poles) — is planned for western showings in British Columbia, Alberta and Saskatchewan.

Designs from Britain, a demonstration of British workmanship, will be shown in Vancouver's Art Gallery, Regina's Norman Mackenzie Art Gallery and at the University of Manitoba in Winnipeg.

As soon as the Centre sorts itself out in its new quarters, or industry brings forth another exhibition idea, other tours will be arranged.

3. Continue its program of educational grants. On the recommendation of the National Industrial Design Council, composed of 20 prominent Canadian industrialists, it has awarded 16-post-graduate scholarships and makes summer school grants to designers already working in Canadian industry.

The Council also boosts cooperation between manufacturers and educational institutions so industrial design courses can be developed in Canada. Ontario College of Art now offers one.

4. Help hold more competitions for new designs.

The first two were held in 1951 and 1952 with prizes of $2,500 put up by both the Canadian Lumbermen's Association and Aluminum Co. of Canada.

Three others have been financed entirely by the Canadian Jewellers Institute (one) and Courtaulds (Canada) Inc. (two).

The 1957 contest will close January 31. Entry forms are available at the Design Centre, Daly Bldg., Ottawa or through Canadian Manufacturers' Association, 67 Yonge St., Toronto. Winners get the distinctive Design Award, which is getting to be considered a Canadian hallmark of excellence.

5. Keep its Design Centre facilities open to the public to encourage an appreciation of things Canadian.

In The Centre

In the centre are:

—The displays.

—Reading room, with most international design publications.

—Examples of the latest in industrial design, from use of colors to models of furniture.

The Centre itself is a model of modern art.

The entrance walls are blue-grey tile, the wall on the left as you enter is a startling black-burlap-over plywood, halfway across the room is a huge curved sky-blue partition to swing your eyes to the right and the display area. The ceiling in the ancient government building has been dropped several feet from its lofty altitude with aluminum screening, to give an intimate effect.

Cost of re-modeling for the 16,000-odd ft. of space was about $45,000. Much the same bright, modern effect can be had by any company for slightly less per foot — special trimmings needed in a national showplace can be left out — according to the men who did the work.

Budget of the Industrial Design Division this year is about the same as last year — about $65,000. National Gallery's is $270,000.

Most of it, apart from staff salaries, will be spent on special services, publications of catalogues and other material, and contributions and grants.

Founding father of the Centre is Donald W. Buchanan. Back in 1947 he decided the National Gallery ought to be doing something to help Canada have distinctive designs of its own, designs done by Canadian designers for Canadian manufacturers and Canadian consumers.

He leafed through the National Gallery's charter, found a tiny reference to industrial design, persuaded the Government to allow an Industrial Design Division, give it a budget.

There is now fairly widespread approval of the work of the Division and recognition of (and competition for) the annual Design Awards — the modernistic check-mark, within a circle, within a square.

The Boss

Mr. Buchanan has now been appointed associate director of the National Gallery and has charge of special projects, of which the Industrial Design Division is one.

Present acting director of the Division and Centre is 32-year-old Norman Hay, a forward-looking Canadian who has studied for four years in various schools and design industries in the U. K.

His Centre's definition of a good design:

—Form suited to the job the article has to do.

—Harmonious relation of all parts.

—Simplicity in shape and outline.

—Absence of unnecessary or meaningless ornament.

—Efficiency.

—Pleasing to touch.

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Toronto — WAlnut 2-9147

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MAXIMUM FOOTAGE with MINIMUM DIAMOND LOSS...

TRUCO

DIAMOND DRILL BITS

Truco Diamond Drill Bits are designed *"to help you cut drilling costs."* Truco engineers, working in collaboration with diamond drillers, have designed a diamond drill bit capable of supplying the penetration speed and core recovery needed in today's demanding diamond drilling requirements.

Truco bits are available in all diamond sizes, including 50, 100 and 200 series. Special type bits can be quickly made to your specifications.

• *Write today for an informative catalogue on the complete line of "Truco Diamond Bits."*

WHEEL TRUEING TOOL COMPANY OF CANADA, LIMITED
575 LANGLOIS AVE., WINDSOR, ONTARIO
Established 1908

SHOP TALK 20 YEARS AGO

"We've switched from hand to spray-painting"

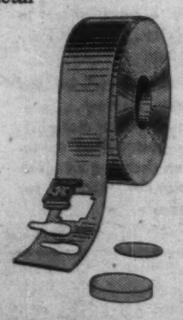
SHOP TALK TODAY

"We've switched from spray to PRE-COATED METAL"

Pre-Coated Metal Saves You Time and Money

Times change . . . so do methods of doing a better and more efficient job. Progress from spray-paint to pre-coated metal is an excellent example.

- Saves on paint and insurance
- Cuts down on labor costs and factory space
- Reduces fire hazard and cost of handling
- Assures better pre-paint treatment, better adhesion and controlled coverage
- Can be blanked, stamped, formed or drawn — won't crack, chip, peel or blister.



Interested?

Have your secretary complete and mail coupon below. Better still phone or wire Mr. G. B. Dobby, Hunter Douglas Limited. He'll make certain one of our representatives calls on you to explain the remarkable advantages of pre-coated metal.

I'M WILLING TO LISTEN.
HAVE YOUR REPRESENTATIVE CALL ON ME.
NAME:
CO:
ADDRESS:
PHONE:

If your metal requires painting, have it pre-coated by

Hunter Douglas Ltd.
9500 St. Lawrence Blvd.,
Montreal, Quebec.
Phone DUpont 1-3981

New Firms Acquired By Jack K. Cooke

Jack Kent Cooke, Toronto publisher, radio station and baseball-club-owner has acquired two more firms—and is negotiating purchase of two additional firms —in his current industrial diversification program.

Mr. Cooke has purchased **Robinson Industrial Crafts,** London, Ont., a large plastic injection molding company, and **Precision Dyes & Castings** of Toronto, an aluminum foundry firm.

A year ago Mr. Cooke purchased **Microplastics Ltd.** of Acton, Ont., large manufacturer of plastic pipe and custom extrusions. The sharp expansion in sales during the past year has been an important factor in Mr. Cooke's decision to expand further into fast-growing plastics.

Robinson Industrial Crafts has been a major manufacturer of large molded parts particularly for the refrigeration industry.

"We are currently negotiating purchase of two more Canadian firms," Mr. Cooke told The Post this week.

Nanaimo Gets Gas by 1957

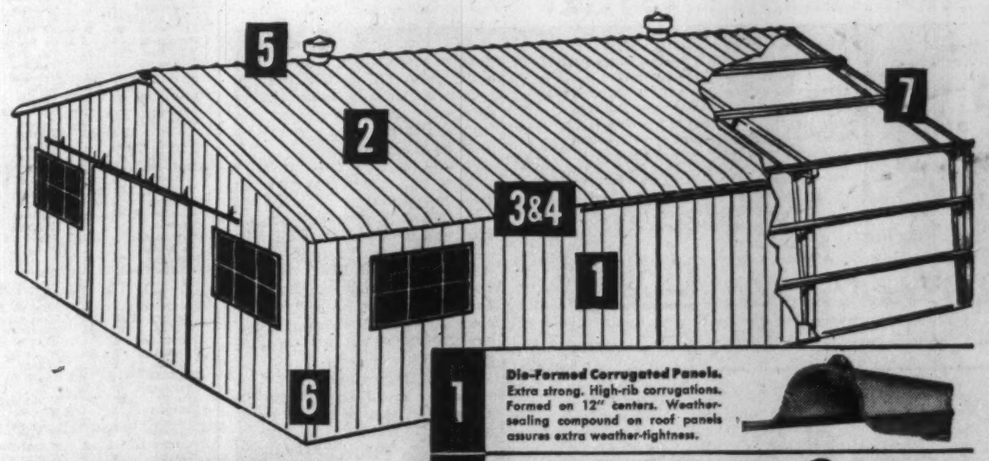
Plans to supply Nanaimo, B.C., with butane gas by the end of the year are nearing completion, according to officials of **Vancouver Island Gas Co.**

A few months ago the company acquired a franchise from the city to distribute gas in both the business and residential areas of the city. The company has also acquired a 20-yr. renewable franchise to distribute gas within the limits of the municipality.

Until the **Westcoast Transmission** pipe line project swings into operation late next year the company will obtain its butane requirements from Alberta by tank-car. At that time it's considered likely the price of both propane and butane will decline and the gases will be freely available in the lower mainland area.

Development of the area will be in three yearly growth phases.

Initial financing for the project is being undertaken by a group headed by the Vancouver investment firm of **Thomas B. Read Co.** Underwriting consists of $500,000 20-yr. general mortgage 6% bonds, 100,000 common shares at $1 per share. For each $500 bond purchased the holder receives an option to purchase 100 common shares at $1 a share.



These BUTLER features separate the men from the boys in the building field

Once you decide to put up a metal building, the question is "Whose?" There are several manufacturers. You need to determine how one make differs from another.

We invite you to compare the Butler building, feature for feature, with *any other metal building.* We think you'll agree the Butler has so many advantages that price differences, if any, become unimportant.

Shown here are a few of the many Butler engineering refinements that separate the men from the boys in the metal building field. For more information see your Butler Builder listed below.

1 **Dio-Formed Corrugated Panels.** Extra strong. High-rib corrugations. Formed on 12" centers. Weather-sealing compound on roof panels assures extra weather-tightness.

2 **Weather-Tight Bolts.** Galvanized, with weather-seal washers. Inserted through precision-punched holes. High strength bolts used on bolted structural field connections.

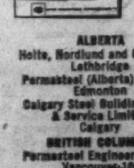
3 **Dio-Formed Eave Panels.** Neatly turned, one-piece. Add strength, trimness, finished appearance. Easily bolted to roof panels to increase speed of erection, lower costs.

4 **Mitering Under Eave.** Sidewall panels are miter-cut at the top to form a weather-tight fit with eave panels, eliminating flashing.

5 **Dio-Formed Roof Ridge.** One-piece, dio-formed roof ridge eliminates ridge roll, forms a weather-tight roof, makes erection quicker and easier.

6 **Weather-Seal Base.** Corrugations in panels are sealed at base of building, fit flush against foundation to keep out rain, snow, sleet.

7 **Butler rigid frames** are latest design wedge-beam construction, for maximum strength per pound of steel. Purlins and girts are high-tensile, cold-formed steel. Every panel is double-bolted through a girt or purlin for extra rigidity.



Ask your Builder for 12-page catalog detailing more features that set a Butler apart from other metal buildings.

Butler buildings now made in Canada—and sold by these Butler Builders

ALBERTA
Holte, Nordlund and Chisholm Lethbridge
Permasteel (Alberta) Limited Edmonton
Calgary Steel Building Sales & Service Limited Calgary

BRITISH COLUMBIA
Permasteel Engineering Ltd. Vancouver 10

MANITOBA
Frank Lawson & Sons Ltd. Brandon
Midwest Mining Supplies Ltd. Flin Flon
Steel Structures (Western) Limited Winnipeg

NEW BRUNSWICK
H. H. Lennox Limited Moncton

NEWFOUNDLAND
Provincial Constructors Ltd. Corner Brook
Provincial Constructors Ltd. St. John's

NOVA SCOTIA
Pre-Engineered Supplies Ltd. Halifax

ONTARIO
Barnett, McQueen Company Limited Fort William
The George Taylor Hardware Limited New Liskeard and North Bay
Steel Building Sales & Supply Ltd. Toronto

QUEBEC
Geocon Limited Montreal and Quebec City

SASKATCHEWAN
Lavoid's Limited Lloydminster
Western Tractor & Equipment Co. Ltd. Regina and Saskatoon

BUTLER STEEL PRODUCTS

BUTLER MANUFACTURING COMPANY (CANADA), LTD.
Queen Elizabeth Highway at Walker's Line • P. O. Box 506, Burlington, Ontario
Steel Buildings • Oil Equipment • Farm Equipment • Bay Cleaners Equipment • Outdoor Advertising Equipment • Special Products

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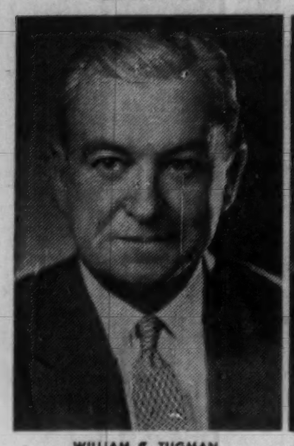
ZELLER'S LIMITED APPOINTMENTS



WILLIAM E. TUGMAN
First Vice-President
and General Manager

FRED S. RYAN
Merchandise Manager

It is announced by George L. Cobb, President of Zeller's Limited and its subsidiaries, that at a meeting of the Company's Board of Directors held September 20, William E. Tugman, First Vice-President, was appointed General Manager. With his office of First Vice-President were formerly combined the duties of Merchandise Manager. Mr. Tugman now relinquishes the latter, and Fred S. Ryan, formerly Assistant Merchandise Manager, has been appointed Merchandise Manager. Associated with Zeller's Limited since 1932, Mr. Tugman and Mr. Ryan have both held various other responsible positions with the Company.

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This information is available only to subscribers. As a special introductory offer you can get a 60 day trial subscription to the **Canadian Forecaster** and the **Canadian Weekly News**. BOTH OF THESE PUBLICATIONS ALONG WITH THE THREE CONFIDENTIAL STOCK REPORTS WILL BE AVAILABLE TO YOU FOR A MERE $5.

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• CANADIAN FORECASTER • CANADIAN WEEKLY NEWS •

Unlisted Mines and Oils

Quotations over-the-Counter Mining Stocks as of Sept. 28, 1956
(Subject to Change and Confirmation)

	Bid	Ask
Abenakis	2	3
Aberdoon	10	15
Abeta	11	13
Abex	22	25
Abino	8	12
Ace Yell	1¼	3
Adanac Que	¼	1¼
Adelmont	2	5
Ad Yknife	1	3
Adnaron	2	5
Adnor	2	6
Ad RL	15	25
Aiken RL	2	5
Aiamac	3	7
Alcan Yell	¼	1¼
Alcop	75	85
Alexander	4	6
Allore	3½	4
Amalg K	5	7
Amber Mng	¼	1¼
Ameran'm	15	17
Amm Gold	¼	¾
Amoradu	1	3
Anabar	5	10
Annamaque	3½	5
Anthonian	30	39
Anwn Ur	9	11
Arctic Y	3¼	3¾
Argonaut	¼	1¼
Argosy	2	...
Arken	¼	...
Arncour	¼	4
Arno	12	13
Arnora	3	6
Atlas Ch	22	25
Atlas Sul	13	15
Audley	¼	3
Audora	¼	3
August P	2	4
Aumo Pore	1	3
Auriac	3½	...
Auterra	¼	2
Bacola	2	3
Baldwin C	3	4
Band-Ore	10	12
Bandowan	22	25
Bankur	¼	1¼
Banner	7	12
Barbi	18	22
Barima	23	28
Bar-Lan	3	6
Bar-Man	1¼	...
Barmont	¼	4
Barnet	97.00	100.00
Barr'ton L	1	10
Barvin	¼	5
Barvallee	13	16
Batch River	1¼	...
Btmn Bay	77	82
Bay RL	1	3
Beacon	8	11
Beatrice	11	12
Beaucamp	¼	1¼
Beaudega	1	4
Beaulieu	1	3
Beauriv	1	3
Beauverny	¼	...
Belfast	6	9
Belkor	¼	...
Belle Ch	29	30
Bellemac	2	...
Bell Mines	76	80
Big Game	8	10
Big Jack	3	6
Big Miss	¼	1
Bilmac	¼	1¼
Biore	3	5
Birch Bay	¼	3
Biroco	2	4
Blind R U	7	12
Blue Gr	6	8
Bocaboss	5	15
Boise Yell	1	3
Bornite	37	40
Boulder G	3	5
Bourl'que	7	9
Bracemac	7	10
Brady C	3½	5
Brae B	2	4
Braminco	13	18
Bravo Yel	¼	2
Bright RL	1¼	2¼
Britt Mal	¼	2
Brown Mc	5	8
Bruce Pr	17	20
Brunette P	5	7
Bull RL	¼	4
Burley	1	3
Cabala	¼	1¼
Calmore	45	55
Calumet	10	15
Campbell	35	39
Camdeck	5	8
Camlaren	44	6
Camoose	5	7
Camray	2	4
Cdn Met	8	11
Cdn Rad	5	8
Cdn Lith	42	47
Canagau	3	6
Canalask	19	23
Canuba	73	77
Capital L	70	75
Captain Y	8	10
Caral	25	35
Carimac	¼	1¼
Carnegie	23	25
Carricona	2	3
Cassidy Y	1	3
Cartier M	7	9
Cayzor	4.20	4.40
Celta	7	10
Cent Man	8	10
Cent S L&Z	5	10
Centre H	27	32
Charles LL	4	6
Chellew	9	31
Chemins	1	...
Cherokee	¼	4
Chespar	22	26
Chib Cop	60	65
Chipman L	30	32
Chukuni	1¼	3
C'nnati P	3	5
Circle	3	6
Classic S	¼	4
Clavos P	2	4
Cleranda	4	7
Clicker	1	3
Clifton	¼	1¼
Clinger	4	6
Clix Ath	7	10
Cobalt P	30	...
Cockeran	1	2
Columbiere	5	7
Columinda	2	4
Com L	¼	3
Comstk K	8	10
Conecho	6	8
Cons Bi	35	40
Con Can	2	4
Con Chib	2.00	...
Con Harp	12	14
Cont Cop	28	32
Cortez	15	17
Crackin	12	15
Craibbe Fl	11	14
Cronin B	6	7
Crossfault	1	2
Crosscourt	¼	3
Crowshre G	4	7
Croydon R	3	5
Cuniptau	¼	1¼
Dack Cr	¼	3
Dastur	¼	2
David Cop	26	30
Delandora	3	...
Delcore	3	...
Delmico	20	20
Delta Ex	1.20	1.40
Dempsey C	1	2
Derlack	2	4
De Santis n	2	4
Desjardins	11	...
Despina	5	7
D'torbelle	2	3
Dodge Cop	5	10
Dolmac	10	15
Dom Exp	8	10
Dom Mal	¼	1¼
Dom Uran	2	4
Donrand	1	3
Dorbaska	¼	1¼
Doreen	4	5
Dorion	3½	4
Doris Yk	2	4
Drake Yk	1¼	3
Dukel	¼	2
Duluth	¼	2
Dumar	¼	2
Dunford R	3	...
Dunterra	30	...
Dunvegan	11	14
Duomal'tic	1	...
Dupel	5	10
Duport	15	25
Dupresnoy	30	...
Durham	4	6
East Bay	4	6
East Lunn	4	6
Eastward	15	...
Echo In	2	5
Edena	40	...
Edwaska	1	2
El Bon	25	30
Elmac	2	4
Elmos	3	...
Elora	4	10
Embury G	3½	5
Empire G	2½	4
Erin Kirk	2½	5
Evenlode	3	6
Fab	30	36
Fairb Sy	1.00	...
Farcroft	4	6
Ferniand	1	...
Fleet Y	5	9
Fleming	10	16
Flicks	64	71
Flin Flon	4	1
Flobec	¼	1¼
Flomic	3	6
Fontana	11	13
Fortune Y	¼	1¼
Forty F	45	...
Frebert	5	10
Fred'k Y	45	60
Fresnore	1	3
Fundy B	16	18
Gachina H	2	...
Galatea	1	3
Gan Cop	5	7
G'vey St	2.00	...
Gateford	4	7
Gilbert	10	20
Gilmont	13	16
Girard L	1	3
Glenlivet	¼	3
Glenburke	8	10
Glencona	4	5
Glenrock	5	10
Goldyke	3	5
Golden G	¼	...
Golden H	10	12
Golden Sh	7	12
Golden A	42	47
Goldmaque	4	6
Goodrock	¼	1
Gordon L	4	6
Gorham	¼	1¼
Governor	5	7
Gra Ch st	50	...
Gt L Iron	¼	2
Greenlee	3	...
Grompo	2	3
Gubby	5	10
Guipore	10	15
Gunflint	¼	1
Habitant	¼	2
Haldem	1	3
Halo	55	60
Harker	2	4
Harpers	1	2
Harricana	3	...
Hay Gold	1	6
Headrue	8	...
Herbdix	¼	5
Heyson RL	1	3
HG Young	17	20
Hislop o	¼	...
Hoodoo L	13	16
Horne F	11	12
Hotstone	2	4
Do Min	8	10
Hub Yk	¼	1¼
Hucamp	10	12
Huclift	8	12
Hud Bay o	20	...
Hudson R	37	38
Huhill	5	...
Humlin R	2	4
Indep'd'nt	12	14
Indyke	2	5
Inter Ash	5	10
Indian M	20	25
Ivan Lac	¼	1¼
Jean Lk	23	28
Jerome	6	8
Jesko	15	20
Junior F	7.00	9.00
KB Min	20	25
Kamlac	11	13
Kaw Crow	¼	2
Kenalix	¼	3
Ken Bay	10	...
Kencour	1	2
Kenda Per	2	4
Kenmac	10	13
Kenog'sis	14	16
Kenroy	¼	1¼
Kenwest M	3	6
Keora	¼	1¼
Kerromac	6	8
Kewagama	1	3
Kiena	2	4
Kinasco	20	25
Kirk East	¼	1¼
Kirk Gate	¼	2
Kirk Hunt	¼	2
Kontiki	14	16
Korby	¼	1¼
Lac Dor	10	15
L Expanse	10	12
L Renzy	80	85
L Rose	2	...
Lambton C	10	...
L S'prince	3	5
Lar Add	2	4
Lardego	¼	1
Lareva	¼	3
Largold n	¼	1¼
Laroma M	8	12
Laronge U	22	25
La Rose	20	...
Larum	16	18
LaSalle	4	...
Lassie R	5	7
Latomic	¼	1¼
Lee Gor	26	30
Leemac	1¼	3
Legardo	¼	1¼
Lennie RL	1	3
Lenwood	42	47
Lepine	2	5
Le Prix	3	...
Lingkey	1	...
Lingside	12	14
Lockabie	1	3
Lockland	¼	3
Lodge Ur	10	...
Loisan	1	3
Long LL	1	...
Lorie n	10	12
Lower C	2	4
Lun Echo	45	46
Lynnwatin	30	38
MacAndrew	1	3
Macjoe	1	...
Magnet L	7	...
Magoma	10	15
Main Oka	13	15
Malbar	1	5
Mallen RL	6	8
Mallick	¼	1¼
Mandy	15	...
Man-Echo	8	10
Manhattan	¼	...
Manterre	1	4
Marg RL '40	2	...
Maree	3	5
Marquette	¼	1
Martin B	13	15
Do un	3.00	...
Mary Ann	2	4
Masaberyl	10	15
Master M	3	...
Mate Yk	6	8
Match C	16	18
Matinenda	2	4
Maylac	2	4
M Spiers	¼	...
McCuaig	2	4
McDermot	3	...
McDonough	5	...
McFinley	24	26
McManus	4	6
McVittie	20	...
Mercury	5	...
Metalore	17	20
Mica Co	2.15	2.40
Mid Chib	60	65
Mildale	¼	5
Miles RL	2½	4
Miller C	38	42
Miller G	8.00	...
Millkirk	10	15
Mills RL	¼	1¼
Mindus	13	15
Mindust	1.30	1.45
Minedel	1	...
Mineral E	40	50
Miracle Y	1	3
Mistassini	1	3
Mitto Per	¼	1
Mogador	60	65
Mohawk M	2	4
Moire Y	¼	1¼
Molyjevis	¼	5
Montcleerg	1	3
Migarry	1.99	2.00
Montco	10	15
Mont Keno	2	4
Moonlake	5	10
Moshia	1	3
Murbell	¼	1¼
Murmac	2	3¼
Murky	60	70
Murphy	3	...
Murto	1	3
My-Ritt	1	...
Narrow L	¼	2
Nasco	4	7
Nat Mal n	12	15
Naybob '45	¼	2
Naylor	¼	1
N Augarita	5	7
N Bruns	38	45
N Do Nick	8	12
N Font	11¼	13
N Jinsco	8	11
N Lorie	11	13
N Mal	3	5
N Redwood	7	9
N Ribago	3	...
N Walcora	3	5
Newbec	¼	1¼
Nickel L	7	9
Nickel Off	40	60
Nicobi	16	19
Nipiron	19	22
Nocana	9	11
Norbeau	85	95
Norbec	20	...
Norcourt	2	4
Norfd Per	1	3
Norman M	1	...
Normar	3	6
N Bell	¼	1¼
North Ld	23	28
North Mal	¼	1¼
N Whit	1	...
North Ld	30	...
North Met	3	10
Nortyne	1	3
Norwin	¼	3
Nulac	¼	2
Numalake	10	...
Numaque	3	...
Nyco	1	3
Novell P	2	3
Obalski	7	10
Do '45	35	38
Oceanic	1.90	2.10
Okleco	3	5
Oklend	6	8
Old Mill	5	10
Olivet	¼	1¼
Ont Nick	5	...
Do n	28	32
Ont Rare M	7	10
Orchan	17	19
Ordala	3	6
Orofino	9	11
Orpit	3	5
Ortona	3	5
Orvalley	1	4
Pacemaker	5	8
Pckrd Per	15	20
Pacolund	2.00	2.50
Paige Hrley	3	6
Palomar	3	6
Parent RL	1	3
Partridge	27	30
Pascalis	9	11
Patrice D	1	5
Paudash	15	17
Pax Ath	45	60
Payne Yk	2	4
Peach U	8.00	10.00
Pelangio	2	4
Pelletier	7	...
Pensive Y	1	3
Pershon	¼	2
Petitclerc	¼	1¼
Phelps	1	2
Pickering	15	20
Picton	15	20
P'point	10.00	11.00
Pinnacle	¼	1¼
Pitchvein	7	9
Pitt Gold	15	17
Plum n	45	60
Polaris	¼	2
Pole Star	40	45
Pontiac R o	5	...
Poona G	¼	1¼
Portage I	67	70
Potterdoal	1	2
Presdor	2	4
Princeton	3	10
Prop Hldgs	4	5
Prov Ash	5	10
Que G Bolt	12	...
Que Smelt	82	86
Quejo	10	12
Quest	¾	2
Quyta	4	...
Rahill	1	3
Rambuil	¼	1¼
Rand Mal	6	7
Randona	1	2
Ranney	1	3
Raylartie	¼	3
Raymond T	¼	3
Redaurum	1¼	...
Red Area	¼	4
Red Bark	6	9
Redcon	4	6
Red Crest	23	24
Redruth	2	4
Redwood o	2	4
Rexora	4	7
Rhyolite R	1¼	3½
Ribago R	3	...
Richard C	10	15
Rich Gr	10	12
Rice Lake	2	5
Rio Tinto	3.25	3.40
Ritoria	¼	...1¼
Robb Mont	¼	1
Ronal	1	6
Ronnoco	3	4
Rose Gold	5	10
Rouge d'Or	4	...
Roy Gold Synd u	2.00	...
Rugged RL	2	4
Russet RL	5	8
Do u	3.00	...
Russian K	1	5
Sal NW	2	4
Salmita C	4	8
Sanshaw	2	5
S'tiago n	19½	14
Scott Ch	10	13
Senore	¼	1¼
Sentinel	4	...
Seventh Ma	2	...
Shawkey o	2	...
Sheldon	10	12
Shunsby	10	12
Silver A	2	4
Silver R	8	9
Simon L	4	...
Sladen Q	1.00	...
Slate Bay	3	6
Snowdrift	40	45
Snow Lake	8	10
Soma Duv	8	12
South Duf	15	18
S Keora	¼	3
S Mal	1	...
Sovereign	¼	3
Spinet	3	5
Stand G	25	29
St Jude	15	20
St Marys	15	20
St Regis L	¼	3
Starcourt	2	4
Starlight	8	11
Stratmt	30.00	33.00
Sudbay	8	11
Sun Bear	3	4
Sunset Y	1	3
Surpas	1.24	1.27
Tache L	42	45
Tanaur	6	15
Tarbutt	7	12
Tazin	12	14
Thorncrest	20	25
Thornhill	1	3
Three Bro	30	40
Tiblemont	30	35
Tomiska	20	25
Torbrook	3.25	3.75
Tower	9	12
Tr Amer	5	...
Tr Canada	¼	1¼
Trans Dom	2	...
Trebor	39	40
Tresdor	6	8
Trojan	1	3
Tromac	5	15
Tyranite	5	...
Ungava	8	10
U Mic Mac	2	...
Ur King	2	...
Ur Ridge	19	24
Val d'Or	40	...
Valdora	1	3
Val Mal	¼	2
Valor	22	25
Valrex	¼	2
Vauze Duf	6	8
Verlac	1	3
Viking	12	14
V'dicator	5	...
Virle Per	¼	1¼
Vinray n	10	13
Virg R L	2	10
Wabiço	8	12
Wadge	6	8
Wadasa	1	3
Wakeko	¼	3
Wedding R	¼	3
Wells LL	10	...
Wembly	¼	1
Wesley	9	11
West Ar n	24	27
West RL	3	5
West B Y	¼	3
West Sh Mal	¼	1
Westville	22	25
West Wasa	4	6
Wildnest	5	15
Wildor	1	3
Wood Br Tr	5.00	...
Wood Cro	1¼	2
Y'knife	2.25	...
Do vt	2.50	...
Y Dav	14	16
Young Sha	2	5
Yukon G	10	...
Yukon R	16	18
Zolata	1	6

—OILS—

Alberf'ld	3	6
Alberta	1	3
Alminster	1	3
Altex	26	29
Barons	4¼	5
B.C. Oil	2.25	2.75
Cdn An	36	37
Cdn Del	6.50	7.00
Cdn Emjay	6	7
Cdn. Su	14.50	15.00
Cdn Jav	20.00	21.00
Citation	10	20
Claybar	16	17
Commnd	1.10	1.40
Edoran	9	10
Empire	28	30
Freehold	3	4
Gateway	6	8
Great B O	1	3
Grease C C	5	5¼
Hargal	3¼	4¼
Harvest	40	45
Jumpg P	18	22
Lake Erie	25	28
Leduc Cal	19	20
Major	¼	3
New Ran	7	7¼
Nrth Cont	3	3¼
Nthland	70	80
Old Smoky	6	7
Pacemaker	5	8
Paige	5	10
Realty	4	5
Richland	5	10
Royal Cdn	7	9
Sec St R	4¼	8
Select	12	15
Share	9	10
Spring C n	17	19
Sturgeon	12	15
Transfield	4¼	6
Turner V	32	40
Vanalta	32	35
Van Tor	1.80	1.75
Verm Con	1	2
Warner W	10	12
Westall	3	5
York	8	9

Company Meetings

Date	Company	Place
Oct. 18	Cdn. Foreign Invest Corp. Ltd.	
Oct. 20	T. H. Estabrooks Co. Ltd.	Montreal
Oct. 22	Kerr Lake	New York
Oct. 22	Midland & Pac. Grain Corp.	Calgary
Oct. 24	Aubelle M.	Toronto
Oct. 25	Jellicoe M.	Toronto
Oct. 25	Wm. M. Lowney Co.	Montreal
Oct. 26	Calgary & Edmonton Corp. Ltd.	Winnipeg
Oct. 26	Continental Can Co. Inc.	New York
Oct. 29	Giant Yellowknife G. M.	Toronto
Oct. 29	Security Freehold Pet.	Winnipeg
Oct. 31	Lochaber Oil Corp.	Montreal
Nov. 14	Melchers Distilleries Ltd.	Montreal
Nov. 19	Gen. Dynamics Corp.	Dover, Del.
Dec. 5	Amurex Oil Co., Ltd.	Arkansas, U.S.A.

It pays to deal with Cimco

New Molson's Brewery (Ontario) Limited on Toronto's Lakeshore Drive.

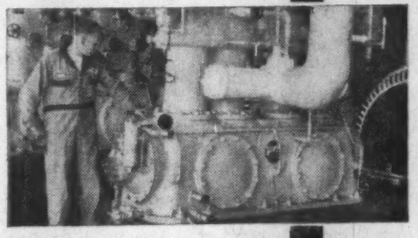
Another example of quality — Plus value

CANADA'S MOST MODERN BREWERY CHOSE CIMCO

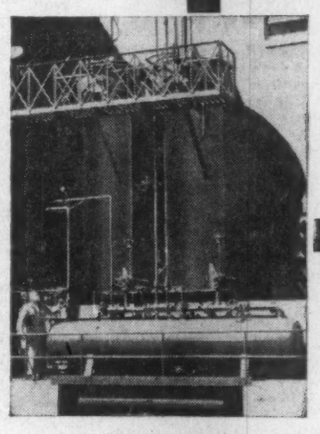
When Molson's decided to spend $11,000,000 on their ultra modern new Toronto plant they wanted the best equipment throughout.

It is only natural that they turned to Cimco, the firm with 43 years reputation for their refrigeration.

In equipment and service Molson's and many other famous Cimco clients are getting the quality-plus value of long successful experience in refrigeration—plus the results of constant Cimco-York research and development facilities. We can give you this same service too. Why not contact us at the address below.



Two 4-cylinder, vertical single-acting, York-Cimco ammonia compressors driven by synchronous motors at the Molson's Plant.



The 2 large Cimco vertical shell and tube condensers with Cimco liquid ammonia receiver at the Molson's Plant.

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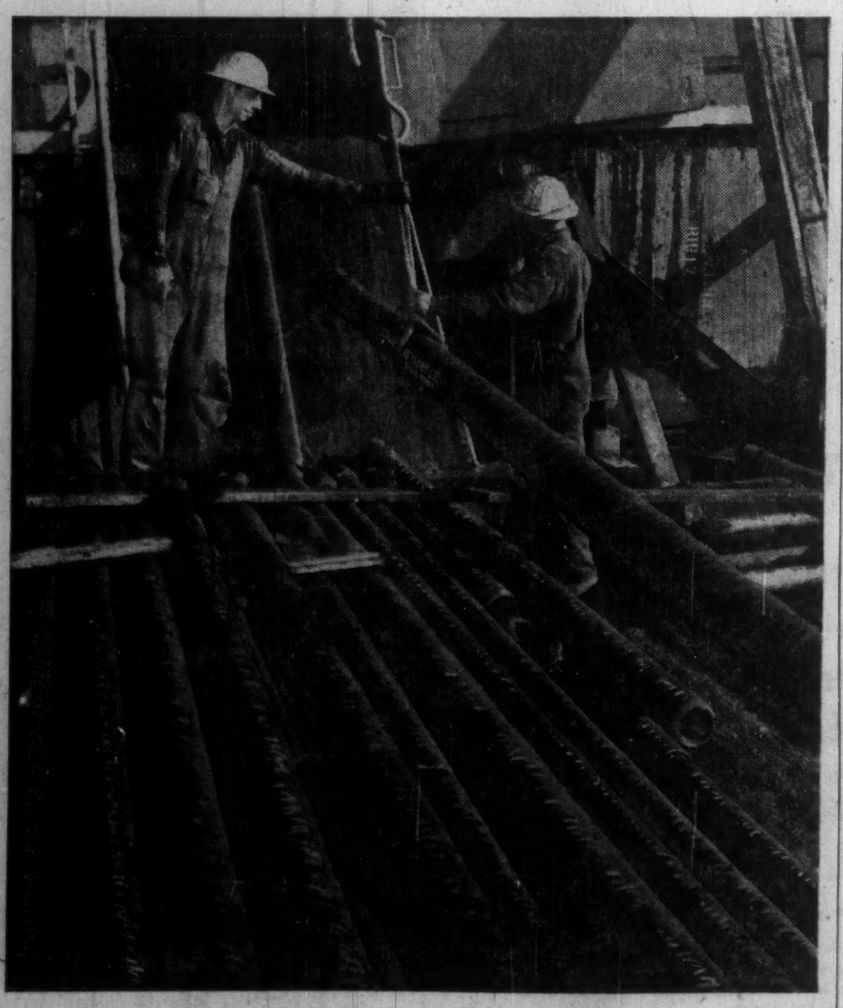


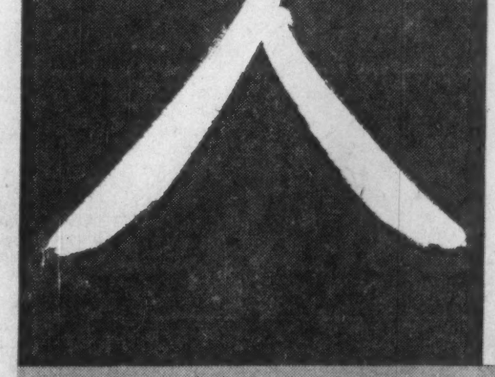
No Substitute for Experience

Yet another joint of Stewarts and Lloyds' seamless steel casing is being prepared for stringing at an Imperial Oil location north of Edmonton.

The world over, wherever men drill for oil or natural gas, there you will find seamless casing and tubing manufactured by S & L.

Ninety-five years as a world leader in steel piping and tubing have qualified Stewarts and Lloyds to serve the vast and growing demands of the Canadian oil industry.

STEWARTS AND LLOYDS
MANUFACTURERS OF STEEL PIPE FOR EVERY USE
STEWARTS AND LLOYDS OF CANADA LIMITED TORONTO • CALGARY



2000 B.C.
...and the word for 'house' was a symbol for a roof!

Chinese script evolved out of a form of picture-writing. Thus, with the addition of two vertical strokes representing 'man' and 'woman', the symbol for 'house' was changed to 'home'. Add another stroke and we have the Chinese word for 'trouble' — the original mother-in-law joke!

Today, when constructing a house, factory or commercial building, we are more concerned with avoiding other kinds of trouble. With new building designs, problems of stress and strain, economic considerations and the ever present problem of weather . . . it is always wiser to turn to expert advice . . . particularly in matters of roofing.

Symbolizing 'know-how' in this field is Alexander Murray . . . providing Canadians with the materials and techniques most suited to today's needs. When drawing up plans . . . consult Alexander Murray for expert roofing advice.

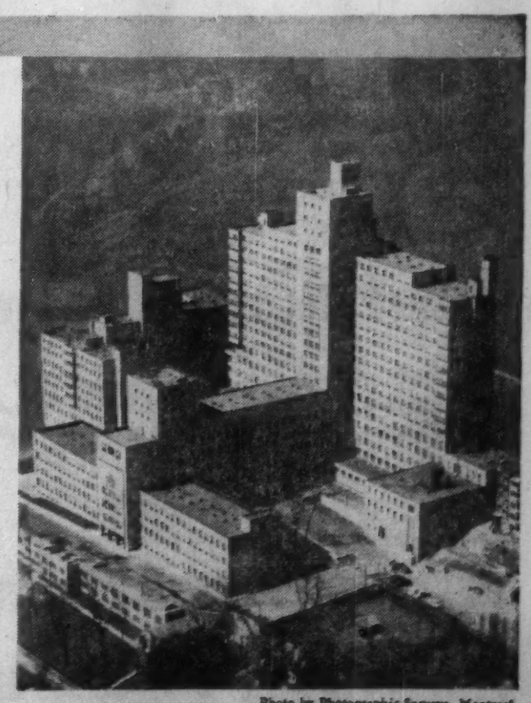


Photo by Photographic Surveys, Montreal

The Montreal General Hospital, one of Canada's most modern medical buildings, is protected by a Murray Built-up Roof.

Alexander Murray Company Limited

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ANNOUNCEMENT
MASSEY-HARRIS-FERGUSON

R. E. KIDDER

Massey-Harris-Ferguson announces the appointment of Robert E. Kidder, as Assistant to the Executive Vice-President, Albert A. Thornbrough. A graduate in Mechanical Engineering, University of Minnesota, Mr. Kidder joined Harry Ferguson Inc., in 1945 as Industrial Engineer, and since 1954 has been associated with Ford Motor Company, Detroit. He has acquired a wide experience in manufacturing methods and general industrial engineering, particularly as used in the automobile industry. In his new position Mr. Kidder will take an active part in the forward planning of tractor manufacture and in the use of factory facilities.

ATLAS STEELS LTD. will offer common shareholders of record Nov. 13 right to purchase one additional share at $20 per share for each five shares held. Rights expire Nov. 30 and transferable subscription warrants will be mailed to shareholders about Nov. 15. Common shares will sell ex-rights Nov. 9.

Market Comment

What stocks and bonds are doing and what prominent observers say

There has been little change in the market atmosphere in recent days. Caution continues the keyword for traders. Stocks are unusually "thin" on both the bid and ask sides of the market.

Copper issues turned softer this week on further weakening in the price structure. Custom smelters in U. S., complaining of disappointing sales so far this fall —particularly from auto manufacturers—reduced their prices 2c a lb. So far prime producers have continued to hold the 40c a lb. price level (39c in Canada).

But some market experts feel that this price cannot be maintained much longer — in face of lower prices in U. K. and lower customs smelter prices — unless a sharp pick-up in business takes place over next two or three weeks.

Further oil discoveries in Western Canada — in the Peace River field, in central Alberta and southeast Saskatchewan — keep Western Canada the most attractive oil exploration area in the world today.

* * *

KIPPEN & CO. (Montreal)

The general business background in Canada and the U. S. continues good; in fact, the fourth quarter in certain segments of the economy will establish new records.

However, industrial expansion and higher earnings are now increasing at a slower rate in relation to the past three or four years, and there are not enough dynamic elements to generate the continuing general upward movement in the stock market.

The market has been characterized lately by sluggishness with some individual strong spots. The forthcoming American election, the Suez Canal problem and the tightness of money are the main factors making for caution.

Furthermore, all the consequences of the stringent money situation in Canada and the United States have probably not yet been seen. Under these conditions a period of irregularity seems to lie ahead.

In the meanwhile, the market is in the throes of adjusting the multiple of the times earnings ratio, which is, in fact, the barometer of investment confidence in the present and future.

In some quarters it is thought that the character of the buying and selling in the general market is less favorable than in the past year or so.

The public at large have been buying stocks at an almost unprecedented rate for the last two years or more. Very recently there has been evidence of some liquidation of stocks by professionally managed investment trust funds, particularly in the U. S.

Moreover, what is known as "odd lot buying" in New York is reported to be heavy and seems to be out of balance with the selling.

Canadian pipeline stocks are attracting considerable attention, and justifiably so. Westcoast Transmission, Trans Mountain Oil Pipeline, and a number of others are very interesting. These issues provide a good degree of security, combined with quite unusual growth prospects. It may be noted that the history of oil and gas pipeline securities is a decidedly favorable one.

* * *

E. G. BULMER; Trends & Timing (Toronto)

We do not like the market outlook any better now than we did back in March, when our Composite Bank Line confirmed the change from an expanding to a contracting economy.

After two decades of applying the effect of an increasing or decreasing money supply on business and the markets, we have developed a profound respect for (a) the consistency of the bank figures, and (b) their ability to provide a warning of impending changes in advance.

Many of today's investors have only a hazy recollection of the market action in 1921-1929-1937. Indeed a great many have never experienced anything worse than the 1946 decline which was over within 6 weeks, and 1953 which was a temporary reaction in a bull movement.

It is little wonder then that a 10% reaction from the all-time high of 521 on the Dow Jones Averages was given prominence in the press. We are not envisioning a depression, but pointing out that if we are now in a bear market, you can expect to see considerably lower levels for the averages.

We have no desire to argue with those who feel markets must rise because this is an election year in the United States, or those that firmly believe the almost daily assertions that our economy is buoyantly expanding. We know that historically every bear market has occurred suddenly in a period of extreme activity, that in our memory except for 1921 and 1929, borrowing rates have never been higher than they are today, and that there is something radically wrong when an individual with good collateral cannot walk into a bank and borrow money on it.

This is the kind of atmosphere that breeds fear and uncertainty. We recommend adding to cash reserves until an increase in the money supply signals the beginning of another period of expansion.

* * *

J. C. STACEY; Bankers Bond Corp. (Toronto)

While adding substantially to our productive capacity during the current year we have placed a severe strain on an economy which was operating close to capacity at the beginning of the year.

The fear of an inflationary boom has led to a monetary policy aimed at controlling the rate of expansion. This has resulted in higher interest rates on fixed income securities. It now appears that current rates have reached a level where some of the capital expenditures contemplated this year are going to be deferred until 1957 or later.

This, in part, was the objective of the Central Bank and the degree of success of the policy may determine whether or not we have higher interest rates. At present levels the investor can purchase Government, Municipal, and Corporate bonds at attractive yields which should prove to be profitable investments over the longer term.

These attractive interest rates have contributed to lessening of investor interest in the stock market. The Suez situation and the uncertainties regarding the outcome of the U. S. presidential election have also contributed to the recent market lethargy.

The near term outlook for the stock market is obscure. While business activity will continue at a high level for the remainder of the year and probably throughout 1957, improved corporate revenues will be accompanied by reduced profit margins in many cases. After several years of a relatively uninterrupted upward trend it may be reasonable to expect a cautious attitude on the part of investors while the market is in a consolidation period.

CAMPBELL RED LAKE MINES LTD. reports gross production of $1,203,359 from 64,332 tons milled in the third quarter of 1956. In the second quarter, production was $1,114,316 while production in the third quarter last year amounted to $1,073,758.

ROYALITE OIL LTD. has issued 10,570 common shares in exchange for 5,285 preferred shares. Now 194,715 preferred shares and 2,891,018 common shares outstanding.

Significant Investors' Index Numbers

No. of Securities	Mach. and equip. 10	Pulp and paper 9	Milling 2	Oils 5	Textiles and clothing 9	Food and allied prod. 14	Beverages 10	Bldg. mater. 15	Power and traction 8	Banks 7	Total utilities 13	Total co's 96
*1935 to date:												
High	947.5	1238.1	252.0	258.0	410.5	203.5	650.0	535.9	233.1	304.7	319.0	297.8
Low	69.7	51.6	61.2	78.4	78.4	79.5	79.3	66.7	60.2	60.0	62.5	61.1
1956												
Monthly Figures:												
Jan.	735.6	1070.0	209.4	175.5	179.9	196.8	583.7	458.4	192.6	260.0	306.5	248.5
Feb.	728.0	1077.3	199.2	182.6	174.0	197.3	579.0	464.0	190.6	264.2	304.1	249.2
Mar.	804.6	1153.0	199.6	205.2	178.8	199.7	590.4	503.6	194.3	276.8	310.2	267.9
Apr.	826.4	1223.9	187.4	210.0	170.9	191.8	577.5	519.5	200.2	288.7	309.3	273.0
May	848.1	1192.5	179.8	211.7	160.2	180.8	551.7	488.5	201.0	271.7	304.2	268.5
June	843.6	1146.0	187.3	219.4	158.8	181.5	549.1	486.3	206.0	280.7	299.8	267.0
July	913.7	1185.8	173.9	234.9	159.5	190.8	565.4	504.5	222.4	287.4	307.9	282.4
Aug.	915.4	1175.3	172.5	250.1	158 3	195.5	558.6	514.2	228.0	295.4	315.7	291.8
1956												
Weekly Figures:												
Sept. 6	896.0	1142.6	170.1	249.5	156.7	190.5	547.4	505.9	232.8	290.4	314.6	288.2
Sept. 13	863.8	1094.4	166.4	243.0	151.8	185.4	534.1	484.9	220.1	285.2	309.6	280.3
Sept. 20	844.3	1045.9	164.8	243.4	153.8	179.8	520.2	474.2	218.9	282.5	307.5	275.2
Sept. 27	817.2	1026.1	162.7	238.9	151.2	178.2	521.9	474.8	217.7	277.2	305.0	271.9
Oct. 4	811.0	999.1	163.5	233.2	152.2	175.6	524.6	469.9	214.5	267.8	305.0	268.4
Oct. 11	837.4	1031.8	159.6	240.6	154.9	175.3	526.2	480.2	218.1	275.6	308.0	275.1

*High and low for year from 1935 to date inclusive are based on weekly figures used by the Dominion Bureau of Statistics.

Toronto Stock Exchange Index

	20 Indus.	20 Golds	15 B.M.	15 W.O.
Oct. 15	473.67	80.59	237.90	156.14
Oct. 12	472.23	80.52	239.34	156.48
Oct. 11	472.56	80.63	239.42	157.14
Oct. 10	470.85	80.78	239.14	157.22
Oct. 9	468.27	80.52	238.57	157.11
Month Ago	477.43	82.21	242.35	165.24
Year Ago	419.70	84.38	199.19	107.26
1956 High	506.33	90.35	261.51	184.09
1956 Low	430.46	78.12	218.46	117.47

Montreal Stock Exchange Index

	10 Util	20 Indus	30 Com	10 Pprs	15 Golds
Oct. 15	140.9	297.6	245.4	1459.85	79.40
Oct. 12	141.1	296.0	244.3	1446.83	78.97
Oct. 11	141.0	295.6	244.1	1448.01	78.97
Oct. 10	139.1	294.0	242.5	1446.09	79.40
Oct. 9	139.4	291.7	240.9	1429.15	79.70
Mon. Ago	141.9	306.5	251.7	1514.83	79.97
Year Ago	127.6	278.3	228.3	1360.33	74.22
1956 High	148.1	332.0	270.7	1712.24	89.73
1956 Low	133.7	283.5	233.7	1341.29	74.22

Dow-Jones Closing Stock Averages

	30 Indus	20 Rails	15 Util	65 Stocks
Oct. 15	489.40	161.06	66.49	172.99
Oct. 12	490.19	160.79	66.49	173.09
Oct. 11	488.06	159.32	66.47	172.27
Oct. 10	487.32	159.48	66.30	172.06
Oct. 9	481.32	158.14	66.07	170.41
Month Ago	498.76	159.27	68.15	175.26
Year Ago	446.13	148.33	61.70	156.86
1956 High	521.06	181.28	71.17	184.11
1956 Low	462.23	150.55	63.03	164.29

Investment Trusts

	Divd. pd. cents	Bid	Ask
All-Can. Com. Fd.	10.62(20.54)	5.40	5.87
All-Can. Div. Fund	21(17.25)	4.95	5.39
Balanced Mut.	13(15)	5.02	5.52
Can. Invest. Fund	26(34)	9.10	9.90
Canafound	123(110)	35.24	37.00
Champion Mut. Fund	9%	5.37	5.90
C'wealth. Inter.	31(28)	7.84	8.62
Corporate Inv.	30(26)	8.73	9.49
Diversified Inc. Shs. B	13(12)	4.05	4.40
Dom. Equity Inv.	30+15(42)	14.45	14.77
Grouped Inc. (new)	8e(10)	3.90	4.27
Growth Mines		4.64	4.88
Growth Oil & Gas		7.66	8.05
Investor's Mut.	21(30)	10.26	11.10
Leverage Fund	18(20)	5.68	6.24
Mut. Acc. F.	18.17(23.53)	6.62	7.24
Mutual Income	26.3(23.42)	5.23	5.72
Resources of Can.	(6)	2.26	...
Sup'vised Amer.	13(21)	6.11	6.17
Sup'vised Executive (1955)	..	26.56	...
Sup'vised Executive (1956)	..	...	...
Sup'vised Gr'th Fund	(4e)	1.88	2.00
Sup'vised Inc. Fund	14(22)	4.25	4.29
Timed Invest.	10(30)	*5.20	*5.20
Trans-Can. A	48.4(83)	38.80	...
Do. B	47.6(96.6)	31.45	...
Do. C	21.2(19)	6.30	6.70

†Less or (*) plus stock exchange commission.
▲Paid or payable in 1956 total paid in 1955 in parentheses.
*Plus stock divd.
♦Reinvested.

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	Incorporated in Canada	Years of Service
The British America Assurance Company	1833	123
The Western Assurance Company	1851	105
The Imperial Guarantee and Accident Insurance Company of Canada	1905	51
The British Canadian Insurance Company	1917	39
The British Empire Assurance Company	1928	28

Combined years of service 346 years.
Combined assets exceed $56,000,000.

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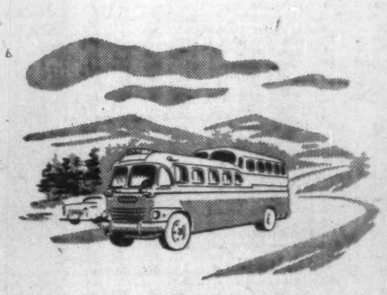
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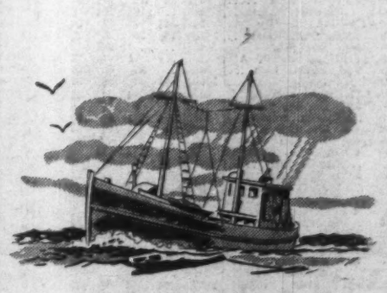
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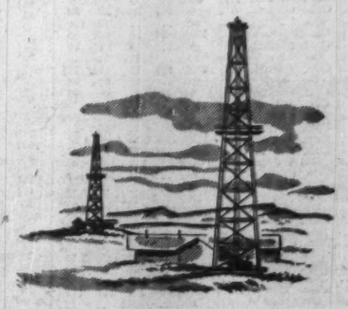
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THE WEEK'S QUOTATIONS

Quotations here listed are the official exchange prices for listed stocks including curb market quotations. For unlisted stocks, quotations by unlisted dealers are given. The Financial Post cannot accept any responsibility for these quotations.

Montreal and Toronto Winnipeg, Calgary and Vancouver

Bid and Ask quotes of Toronto and Montreal exchanges up to press time are published on page 44

WEEK ENDING OCTOBER 12, 1956

Range 1956 High	Low	Div. Rate $	Y'ld %	Company	Sales	Last Sale	Week end. Oct. 12 H	L	Close
1.75	.70			Abitibi Lum.	88400	1.50	1.50	1.40	1.50
43¼	33½	*1.56		Abitibi	7976	36¼	37½	35¾	36¼
26½	23	1.12½	4.8	Do. 4½% pref.	900	23¼	23½	23	23½
12¼	9	.50	5.4	Acadia Atlan.	125	9	9¼	9¼	9¼
101½	100	5.00	5.0	Do. 5% pref.	nil	..	..	..	100
24½	19½	1.20	6.0	Do. (A)	195	20	20½	20	20
		a1.00		Admiral	nil	..	15¾	15½	†17
8¼	7	.40	5.6	Agnew Surp.	46	7¼	7½	7¼	7¼
10¼	8½	.55	6.5	Do. pref.	nil	..	9¼	9¼	9¼
2.10	1.45			Albt. Dist.	1850	1.95	1.60	1.55	1.55
1.75	1.30			Do. V.T.	4300	1.45	1.40	1.30	1.40
127	93			Algoma Steel	2105	111¾	114¾	111	114
26¼	21½	1.00	4.8	Alum. of Can. p	300	23	23¼	22½	23
52½	47½	2.25	4.6	Do. 2nd pref.	1405	47½	49¼	47½	49¼
147½	100	*a1.75		Aluminium	5240	123¼	126½	123¼	125¼
8	5½	*a.15		Andian Nat.	nil	..	6	7	5½
15	13½	*.40		Anglo. Can. Oils (Brandon)	nil	..	17	..	15
51½	37	2.00	5.2	Ang. Cdn. Pulp.	1035	37¼	38¼	37¼	37½
54½	50	2.80	5.6	Do. pref.	236	52	52	51½	51½
50¼	40	2.25	5.5	Ang. Can. Tel. p	1405	47¼	41	41	41
13¾	10	.60	5.5	Ang. Nfld.	4680	10¼	11	10¼	11
..	..	*1.00		Anglo-Scand. Inv	nil	..	..	..	..
26¼	24½	1.20	4.8	Anthes Imp.	50	†24½	25	25	25
80	.35			Arcan Corp.	957	.35	.40	.35	.40
25¼	17¾	.80	4.2	Argus	2495	18½	19	18½	19
57	50	2.40	4.8	Do. 4½% pref.	150	50½	51	50¼	50¼
47¼	41	2.50	5.9	Do. $2.50 pref.	600	42½	43	42½	42½
35	25	*a1.00		Aro Equip.	nil	..	..	..	35
48	36½	1.00 + †.60		Asbestos	360	37	38	37½	37½
14	11¾	.55	4.6	Ashdown Hd. A.	nil	..	13¾	..	13¾
14½	12½	.72	5.5	Do. (B)	10	13	13	13	13
6¼	2½			Ash Temple	1200	3.75	3.15	2.75	2.95
100	96	6.00	6.3	Do. A pref.	25	100	96	96	96
10	9½	.65	6.8	Do. B pref.	nil	..	9½	10¼	9½
..	..	+4.00 + *2.00		Assoc. T&TA p	nil	..	..	..	101
7	5¾			Atlantic Accept.	nil	..	6	6¼	5¾
16	15	1.10	6.9	Do. pref.	nil	..	15¼	15¾	16
24¼	17¾	*.75		Atlas Steels	9821	30	31¼	29½	29½
15	10¾	*.52 + $2.50		Auto Electric	225	13¾	13¾	13	13
10¼	9½	.50	5.0	Do. (A)	nil	..	..	..	10
17¼	5	•		Auto Fabric A	nil	..	5	5	5¼
3.50	1.00			Do. (B)	225	225	*8.00 + $1.00		225
47	39	1.30 + $2.20		Bk. Can. Nat.	755	39½	40½	39¼	40½
52	47¼	1.40 + $2.20		Bk. Montreal	4976	51	52¾	51	52¾
60½	53½	1.80 + $2.20		Bk. N. Scotia	5133	56½	56¾	56½	56¾
..	..	2.20 + *.50		Barber-Ellis	nil	..	..	..	..
..	..	3.50		Do. 7% pref.	nil	..	..	..	..
7¾	3			Baroid	nil	..	4	7	7
10	9½	1.00	11.0	Bates & Innes A	nil	..	..	9¼	9¼
46½	38	3.00 + *.50		Bathurst Pr. A	224	39	39	39	39
26	27	*1.50		Do. (B)	418	39½	40	39	39½
8	6¼	.40 + *.10		Beatty Bros.	175	6¾	7	6¾	7
32½	32¼	*1.00		Beaubrun	nil	..	29½	30¼	30¼
21	18	.90		Beaver Lumber	325	19	18	†17	†17
22¾	20	1.00	5.0	Do. (A)	250	21½	20	20	20
33	32½	1.40	4.2	Do. pref.	nil	..	..	32¼	33
9¼	6½	1.20 +		Belding Cort.	800	8	8	8	8
18	10¼	.70	6.7	Do. pref.	360	†10	10¼	10¼	10¼
10	8¼			Belgium Stores	10	..	9	9	9
16	11	1.00	7.2	Do. pref.	145	14	14	14	14
51¼	44½	2.00	4.3	Bell Telephone	11206	46¼	47¼	46½	46¾
8	5	.40	5.4	Biltmore Hats	nil	..	7	7¼	7¼
14¼	12¾	1.00	7.9	Do. (A)	110	13	13	12¾	12¾
50	50	2.40 + 2.40		Bird Constr.	nil	..	50	..	50
10	8			Blue Ribbon	nil	..	11	12	†13
36	27	*1.25		Do. pref.	nil	..	35	40	36
..	..	.50		Bowes Ltd.	nil	..	20	24	13
51	44½			Bowater pref.	310	45¼	46	45¼	46
20	17¼	1.00	5.6	Brant. Cord. A.	nil	..	17¼	18¼	18
12¾	9¼	.50	4.9	Do. (B)	100	10	10¼	10¼	10¼
8	6¼	*.50 + $2		Brazilian Tr.	26741	7¼	7¾	7½	7¾
90	90	6.00	6.6	Do. pref.	nil	..	90	91	†88
50	46¼	2.90	6.2	Bridge & Tank p	nil	..	46¼	47	46¾
3.40	2.55			Do. Warr.	1065	3.15	3.20	3.20	3.20
19	13			Bright, T. G.	5	15	14	14	14
21½	19	1.15	5.8	Do. 5% pref.	nil	..	20	20	20
39¼	29	1.20 + $2.40		Br. Am. Bk. N'ts	nil	..	..	35	30
2.50	2.00	1.00	2.2	Brit. Amer. Oil	16360	46¼	46¼	45¾	46¼
95¼	80	4.00	4.9	B.C. Elec. 4% pf.	241	80	81	80¼	81
106	94	4.75	5.0	Do. 4½% pref.	191	94	95	94	95
55½	49	2.50	5.1	Do. 5% pref.	290	49	50	49	49
52¼	44	2.25	4.8	Do. 4½% pref.	270	45	47	44½	47
51	42½	2.12½	5.0	Do. 4½% pref.	155	42¼	42¼	42¼	42¼
20	13¾	*.37½		B.C. Forest	6410	14¼	14¼	14	14¼
17¾	13	*.75	5.3	B.C. Packers A.	1705	13¾	13¾	†13¾	†13¾
16½	12	*1.25		Do. (B)	125	13¼	13¼	13	13¼
80¼	36½	1.40	3.2	B.C. Power	5978	41	44	41¾	43¾
52¼	44½	2.00	4.5	B.C. Tele.	1586	45	45	44¼	44¼
1.65	1.20			Do. Rights	43272	1.30	1.35	1.20	1.30
1.05	.87½			B.C. Turf	nil	..	.97	1.00	.97
24½	17½	a1.00	6.5	Brown Co.	1315	19¾	19¾	18¾	19¼
14¾	8	1.20¼		Bruck S. Mills A	nil	..	7¾	10	8
..	..	..		Do. (B)	nil	..	3	3	3¼
40	32½	1.80	5.5	Building Prod.	851	33¼	34½	32¾	33
7¾	7¼	.50	6.7	Bullock's A	nil	..	7	7¼	7¼
8	5¼	*.17½		Do. (B)	nil	..	5	5¼	5¼
33	27½	1.00 + *.50		Burlington Steel	325	28	28	28	28
14½	11	*.50 + .05		Burns & Co.	2125	12½	13	12¼	12½
9¼	7¼	.45	6.0	Burrard D.D. A	nil	..	7¾	7¾	7¾
2.50	1.50	•		Butterfly Hos.	nil	..	14	14	14
..	..	..		Caldwell Linen	nil	..	..	..	14½
34½	21¼	1.50	7.0	Do. 1st pref.	nil	..	21¼	23¼	21½
12	12	.80	6.2	Do. 2nd pref.	nil	..	12¾	..	12¾
69	55¼	*1.00		Calgary Pwr.	2691	60¼	63	60	62¾
105	100	5.00	4.9	Do. 5% pref.	35	102	103	101	103
24	20	3.50	3.1	Canada Bread.	350	2.90	3.35	3.25	3.35
2.00	1.60	1.30		Do. pref. B.	nil	..	..	..	50
37	30½	1.30	4.3	Canada Cement	3804	30	30½	29¾	30½
32	27½	1.30	4.6	Do. pref.	373	29½	29	27¾	28¼
11¾	7	1.20		Can. Cr. Stone	nil	..	7	7¾	7¾
28½	20¾	*.90		C. & D. Sugar	1786	21¾	22	21¾	22¼
2.00	1.70	*1.00		Can. Floor B	nil	..	..	16	17½
19	13	.40	3.0	Can. Malt	nil	..	13	13	13
17	14¼	.60 + *a.10		Do. (A)	nil	..	..	14¼	14¾
15	15			Can. Forg.	nil	..	..	13¾	†10
29	25½	1.50	5.8	Do. (A)	nil	..	26	29	26
39½	32½	1.50	4.6	Can. Iron	1008	33¼	34	33¼	33¾
106½	100	4.25	4.2	Do. 4½% pref.	120	100	100½	100	100½
15	10	1.00		Can. Life	nil	..	15	15	15
15	10	2.25		Can. Machine	nil	..	..	10¼	10
62	53	2.00 + ■		Can. Maltings	5	56¼	56	56	56
26	22½	1.17	5.0	Do. 4½% pref.	65	24	24	22¾	23¾
43	37	1.50	3.9	Can. Packers A.	nil	..	45	39	39½
39½	33½	1.50	4.5	Do. (B)	75	36¼	36	36	36
96	86	3.00 + *.40		Can. Perman.	215	87	87	87	87
104	97	4.40	4.5	C. Safeway p	60	103	103½	102	†92½
38	23	*1.00		Can. Steamships	130	25	24¼	24¼	24¼
14	12	.62½	5.0	Do. pref.	1475	12¼	12¾	12¼	12¾
20	18	2.00 + 2.35		Can. Vinegars	225	18½	20	19	20
..	..	.50	6.2	Can. W. Cord A	nil	..	..	..	8¼
225	195	4.00	2.0	Can. W. Cable A	nil	..	190	..	200
24½	18	*.40		Do. (B)	205	..	20	20	20½
95	85	1.00 + *.20		Canadian Arenas	nil	..	96	..	95
7¾	5½	•		Cdn. Bakeries	25	6	15	15	15
59	44½	1.40 + *.20		Cdn. Bk. Com.	1635	51	52½	50½	52¼
33½	26	1.50	5.8	Cdn. Breweries	6348	26¼	27¼	26¼	27¼
33½	26½	1.50	4.8	Do. pref.	595	27	27½	26¼	27½
33	27	1.50 + 2.50		Cdn. Canners	35	29	30	29	29¼
105	102	5.00	4.8	Do. pref.	nil	..	101	..	102
43	33½	2.00	4.7	Cdn. Canners (B)	1481	41¼	43¼	41¼	43
..	..			Do. D. Rec.	nil	..	41	..	..
21¼	13	.60 + 2.15		Cdn. Celanese	1360	13¾	14¾	13¾	14
37	27	.60		Do. pref. $1.76	152	28	29¾	29	29¾
12½	11¾	1.00	6.6	Cdn. Chem. pref.	100	11¾	11¾	11¾	†11¾
11¾	8			Cdn. Chem.	2740	8¾	9¼	8¾	9¼
14¾	7¼	■		Cdn. Collieries	2600	8	8	7¾	8
.98	.80	*+1.02½		Do. pref.	2500	.95	.89	.90	.86
4¼	4			Cdn. Convert A	550	†7	8	6¼	7
6	4	•		Do. (B)	50	4	4	4	4
15	6¼	•		Cdn. Cottons	95	6¼	6¼	6¼	6¼
9	6¼			Do. pref.	100	6¼	6¼	6¼	†6¼
25¾	19	*.50		Cdn. Dredge	630	19¼	20	19¼	19¾
29¾	22	1.20	4.3	Cdn. Fairb.	nil	..	33	27	28
125½	124	6.00	4.8	Do. pref.	nil	..	125	..	125
4¾	3	•		Cdn. Food Prod.	400	3¾	3¾	3¾	3¾
9	8	•		Do. A	400	8	8	8	8
65	53	•		Do. pref.	25	55	55	55	55
1000	825	*7.00 + 4.00		Cdn. Gen. Elec.	nil	..	800	995	1000
32	30½	1.10 + *.10		Cdn. G. Inv.	685	31	30	29¾	30
27	21¼	*.75 + ■		Cdn. G. Sec. A	40	21¼	22	22	22
26	25	*.75 + ■		Do. "B"	nil	..	..	29	26
13¾	7¼	*.10		Cd. Hydro-Card.	1305	9¼	10	9¼	10
6	5	1.10		C. Ice Machine	nil	..	5	7¼	17
13¾	11	.80	7.3	Do. (A)	nil	..	11¼	11¼	11
24	17	*.50		Cdn. Indust.	2137	17¼	18	17¾	17¾
95	90	*2.00 + 2.00		Do. pref. ('54)	nil	..	82	90¼	90
50	40	*.60		Cdn. Ingersoll R	65	46	46	46	46
20	17	*.75		Cdn. Int. L. Tr.	nil	..	19¼	..	19¼
98	93	5.00	5.5	Do. pref.	10	93	91¼	91	91¼
41	21	*1.50		Cdn. Locomo.	230	31	31	29	31
6.62½	3.50	*.06		Cdn. Marconi	1190	4.00	4.25	4.05	4.25
30	19½	.60	2.4	Can. Oil	1474	25¼	26¼	25¼	25¼
107½	100	3.00	4.9	Do. 5% pref.	35	102¼	103	100	102
165	160	8.00	5.0	Do. 8% pref.	nil	..	..	160	160
99	93	4.00	4.3	Do. 4% pref.	nil	..	..	93	94
13¼	7¼			Do. Warr. 1953	240	9¾	10¼	9¼	9¾
7.37½	3.35			Do. Warr. 1955	500	5.00	5.50	4.65	4.85
36¼	30½	1.80	4.5	Cdn. Pacific	10475	32¾	33¾	32¼	33¼
21¼	22½			Cdn. Petrofina p	2319	28	29½	27¾	29½
10	8			Can. P. & P. Sec	nil	..	6¼	7¼	8¼
1.20	.85			Cdn. Propane	nil	..	1.06	1.05	1.00
21¼	15			Cdn. Salt	nil	..	18	20	20
42	31	•		Cdn. Silk A	nil	..	..	4	31
136	91	.60 + *.10		Cdn. Tire	35	123	117	117	117
..	..	1.00	4.8	Do. pref.	nil	..	204	..	21
106	98½	5.00	5.1	Cdn. Utilities p.	35	†98	197½	†97¼	197¼
..	..	4.25		Do. 4½% pref.	nil	..	..	81¼	..
46	29	1.50	4.7	Cdn. Vickers	1200	31¼	32	31	31¼
15	10½	.40		Can. Wallpaper A	nil	..	11	11	11
17	9	*.40		Do. (B)	75	13	13¼	13¼	13¼
30	14¼			Cdn. Lumber	nil	..	..	25	27
19	16½	.80	4.9	Cdn. West Gas p.	nil	..	16	16½	16¾
53	42	*1.00		C. Westinghouse	185	44	42½	42	42
6.25	4.60	*a.15		Capital Estates	950	4.85	4.80	4.70	4.80
1.50	.95			Carling Br. Alta.	1000	1.35	1.38	1.38	1.38
1.30	1.00			Do. V.T.	nil	..	..	1.15	1.10
14	12½	.80 + *.30		Carter, J. B. A.	nil	..	..	12½	12½
18	17	*1.00		Do. (B)	nil	..	18	..	†19
28	25	1.50 + *.15		Catelli Food A.	nil	..	25	27	26
40	38	1.00 + *.15		Do. (B)	nil	..	39½	..	39½
..	..	*.37½		Celanese Corp.	nil	..	..	..	..
..	..	a1.50		Do. 4½% pref.	nil	..	..	..	..
..	..	a7.00		Do. 7% 2nd pf.	nil	..	..	..	..
28½	27¾	.80	2.8	Cent. Can. Invest	nil	..	30	..	28½
103	100½	5.00	5.0	Do. pref.	nil	..	100½	..	100½
72½	54	1.40	2.5	Chart. Trust	155	56	56	56	56
12.50	3.30			Chatco Steel	2026	12¾	13¾	12	12¾
6¼	5	1.30		Do. pref.	nil	..	4.35	6.00	6.50
18¼	14	1.00	6.9	Chateau-Gai	nil	..	15	15	14½
86	39	*a2.25 + 21.00		Chrysler Corp.	135	71¾	74¾	73¼	74¼
.65	.50	*6d		Cinzano A	200	.90	.80	.80	.80
14	14	34%		Do. 5% pref.	nil	..	.83	..	3.50
2½	2	•		Circle Bar Knit.	nil	..	3	3	2
41	41	•		Do. (A)	nil	..	42	9	41
6¼	3½	•		Claude Neon A.	30	6¼	6¼	6¼	6¼
7.00	3.65			Do. (B)	nil	..	6	6	6¼
82	68			Do. pref.	nil	..	72	74	72
22½	17½			Cochrane-D	5	†17	†17	†17	†17
22	13½	.80	4.3	Do. (A)	nil	..	15	7	†13½
8	6¼			Cockshutt Farm	2475	6¼	6¾	6¼	6¾
17¼	13½	1.00	6.5	Coghlin, B. J.	325	16¼	15¾	15¼	15½
13¼	13¼	*.75 + .35		Coll. Terminal	nil	..	13¼	..	13¼
13½	13	*.75 + .35		Do. pref.	nil	..	13¼	..	13
13	9½	*.55	3.5	Comb. Enter.	350	10¾	10¾	10¼	10¼
12¼	10½	.80	7.6	Conduits Nat.	150	11	10½	10¼	10½
170	135	1.50	1.0	Conf. Life	5153	135	135	135	135
10¼	6½	.30		Con. Bakeries	nil	..	6¾	6	6¾
12	9¼	.50 + .10		Cons Div Sec A	12	1.60	1.50	1.50	1.50
36½	33	*.25		Do. pref.	3	†37½	35	35	35
16¼	16			Cons. Fire Ins.	nil	..	5	7	4
47½	33½	*1.30 + .40		Cons. Foods	nil	..	16	..	16¼
3	2¼	•		Cons. Paper	9366	37¼	39	37½	38¼
1¼	1			Cons. Press A	nil	..	2.35	2.60	2.60
38	28	.80 + *.95		Do (B)	nil	..	1	1¼	1
6.75	2.90	•		Cons. Smelters	8182	29¼	30¼	29¼	29¾
		1.00	4.9	Cons. Textiles	100	3.90	4.00	4.00	4.00
28¼	20	.80	2.9	Do. pref.	nil	..	..	..	†20½
33¼	30	1.50	5.0	Consumers' Gas	3390	27	28	26½	27½
		*a1.25		Consum. Glass	50	30¼	30	30	30
5	4½			Cont. Can	nil	..	..	..	85
				Copp Clark	nil	..	41	43	44
18	15	*.50		Corbys Vot.	275	15½	16	15½	16
17¼	15	*.50		Do. Non-Vot B	19	15½	15	15	15
13¼	11¾	.70	5.5	Cosmos Imp.	250	13¼	13	12¾	12¾
7¼	5½	.30	4.2	Craig Bit	nil	..	7	7¼	7¼
23½	20	.60	2.6	Crain, R. L.	200	22¼	23¼	23½	23¼
11¼	9	*.50 + .05		Credit Accept.	100	9	9¼	9¼	9¼
51	42			Creatbrook Ltd.	nil	..	4.65	4.75	4.65
49¼	46¼	2.75	5.7	Do. pref.	150	48¼	48¼	48¼	48¼
1.50	1.00			Do. Warr.	125	1¼	1¼	1¼	1¼
56	46	2.00	4.0	Crown Cork	5	48	50	50	50
28	22¼	.60	2.5	Crown Trust	325	22¼	24	23¼	24
69	49¼	a1.80 + ■		Crown Zellers	239	54¼	54¼	53¼	53½
120	105	5.00	4.6	Do. 5% pref.	95	101	101	100½	100½
115	108	5.00	4.6	Do. 5½% pref.	5	†104	106	108	108
7¼	5	.20	3.9	Gen. Bakeries	100	5¼	5¼	5¼	5¼
1276	99¼	48	4.6	Gen. Dynamics	1276	99¼	48	46¼	47¼
56	56	a*2.00		Gen. Elec.	nil	..	..	65	56
519	46¼	46	4.6	Gen. Motors	519	46¼	46	46	46¼
39½	36	■		Gen. Products A	nil	..	..	35¼	37
48	40	■		Gen. (B)	nil	..	39	..	40
114	8	.40	4.8	Gen. St. Wares	nil	..	8¼	9	8½
99	90	5.00	5.6	Do. pref.	nil	..	86	89	90
170	132	4.00	2.7	Goodyear Tires	227	148	151	148	150
53	48	2.00	4.1	Do. pref.	10	48¼	49	49	49
102	67½	12.00		Gord. Belyea A	nil	..	..	..	102
8¾	7	.50	6.8	Gord. MacKay A	200	7	7¾	7¾	7¾
10	6¼	.50	7.4	Do. (B)	nil	..	6	7	6¾
		a1.00		Gould Pumps, pf	28	†12	†16	†16	†16
17¼	14	1.00	7.1	Grafton A	nil	..	13¼	15¼	14
35¼	35	*.75 + .30		Grand & Toy	nil	..	36	49	35½
87	38	1.60	4.1	Gt. Lakes Paper	2851	39¼	40	39¾	39¾
200	6			Gt. North Gas	200	6	6¼	6¼	6¼
3.75	2.95			Do. Warr.	1775	3.00	3.25	3.20	3.25
47	43	2.50	5.8	Do. pref.	nil	..	41	43	43
11¾	8	.50	5.4	Gt. West Coal A	200	9¼	9¼	9¼	9¼
10¼	7¾	*.37½		Do. (B)	nil	..	8¼	9	8¼
310	250	3.00	1.0	Gt. West-Life	nil	..	268	..	310
20½	19	2.00	10.0	Gt. W. Saddlery	nil	..	20	20¼	20¼
5.50	4.40	1.20 + *.10		Greenfield Mu.	nil	..	1.30	1.30	1.30
6¼	5¼	.40	7.0	Growers Wine	300	5¼	5¼	5¼	5¼
24	20	.70	3.3	Guaranty Trust	35	21	21	21	21
6	2½			Gurney Prod. C.	100	3	3	3	3
27	22	1.60	7.8	Do. pref.	10	†20¼	†20¼	†20¼	†20¼
38	28	*.60		Gypsum, Lime	2590	33	32¾	28	28¼
23¼	21	1.00	4.8	Hahn Brass	nil	..	18¼	21	21
16¼	14	.80	4.8	Do. (A)	nil	..	15	16¼	16¼
17	13¾	.90	6.0	Ham. Cot.	nil	..	13¼	15	15
100	77	5.00	5.1	Do. 5% pref.	nil	..	..	100	†100
9	7¾	.60		Harding Carpet.	49	†7¼	†7¼	†7	†7
10¼	9	.50	4.9	Hartz, J. F. A.	nil	..	8¼	10	10¼
41	27	21.50		Hayes Steel	150	32	31¼	31¼	31¼
4	3½			Hees, Geo. R.	140	3¼	3½	3½	3½
7	5½	*.06½		Hendershot Pap.	400	6¼	6¼	5½	6
98	98	6.00	8.2	Do. pref.	nil	..	96	97	97
80	70			Hillcrest Coll.	nil	..	70	..	70
58	44	1.80	4.0	Hinde & Dauch	100	44	44	44	44
4	2½			Holden Mfg. A	nil	..	2	3	2½
14	12			Do. (B)	nil	..	2	3	2½
..	..	..		Holt Renfrew	nil	..	..	..	66
..	..	5.00	5.0	Do. 1st pref.	nil	..	..	100	..
..	..	5.00	5.9	Do. 2nd pref.	nil	..	..	85	..
11	10¼	.50	4.8	Horner, F. W. A	nil	..	..	11	10¼
22	21			LaSalle	nil	..	..	..	20
49	35	1.00 + *.35		H. Smith Paper	3390	35¼	37½	35	37½
50¼	44	2.00	4.4	Do. pref.	50	45	46¼	45¼	45¾
2.00	1.25			Hubbard Felt	nil	..	1.12	1.60	1.50
18	17	1.50 + ■	.75	Do. A pref.	nil	..	..	20	17½
17	15	.80	5.0	Hughes-Owen A.	175	16	16	16	16
		.40	4.4

Mine and Oil Stocks

Range 1956 High	Low	Div. Rate $	Company	Sales	Last Oct. $	Week Ending October 12 High	Low	Close
.84	.31	...	C. Gold. Arr.	nil	...	.23	.24½	.21
.50	.20	...	C. Guayana	nil	...	.30	.30½	.32
3.75	.44	...	C. Hall'well	657,150	2.05	2.36	2.06	2.25
3.10	2.80	...	Con. Howey	2,530	3.05	4.05	3.90	4.00
.87	.30	...	C. Marbenor	3,000	.30½	.33	.30	.35
.25	.25	...	Con. Marcus	2,426	.25	.25	.25	.25
1.10	.26	...	C. Morrison	5,200	.30	.30	.28	.28
.94	.65	...	C. Mosher	2,050	.66	.68	.65	.65
.44	.20	...	C. Negus	nil	.30½	.23	.24	
.45	.11	...	Con. Nich.	21,266	.13½	.12	.11½	.11½
2.04	.71	...	C. Northland	8,143	.96	1.00	.95	.99
.40	.16½	...	C. Pershcourt	1,500	.20	.21	.21	.21
1.10	.51	...	C. Que. G.	nil	...	.50	.55	.55
1.10	.40	...	C. Que. Y.	38,425	.87	.85	.79	.80
.60	.23	...	C. Red Pop.	25,500	.28	.33	.27	.32
1.20	.43	...	C. Regcourt	61,200	1.04	1.05	.94	1.00
.25	.11	...	C. San'rm	2,100	.13½	.12½	.12½	.12½
38.00	28.00	.80	Con. Smelt.	8,182	29.50	30.12½	29.12½	29.37½
		+.95						
3.40	2.45	...	Con. Sud'ry	12,737	2.80	2.85	2.70	2.80
.60	.20	...	Con. Thor.	5,250	.24	.23	.22	.22
.90	.32	...	Con. Tung.	15,250	.40	.44	.35	.35
3.25	1.00	...	Con. Potash	290	1.05	1.12	1.00	1.10
8.50	5.75	...	Conwest	5,870	6.05	6.05	6.00	6.05
6.65	3.25	...	Copper Cliff	8,147	3.75	3.80	3.60	3.70
3.00	1.25	...	Copper Corp.	22,300	1.40	1.50	1.38	1.56
.71	.39	...	Coppercrest	20,465	.67	.69	.58	.62
.58	.14	...	Copper Man.	10,625	.15	.18	.15½	.17
.20	.05	...	Cortez	75,500	.18	.18	.17	.17½
2.18	.85	...	Coulee	35,900	1.01	1.20	1.00	1.10
.29	.12	...	Cournor	nil	...	.13	.15	.16
3.10	1.25	...	Cowichan	4,600	1.45	1.40	1.25	1.39
1.26	.98	...	Crestaurum	1,500	.10	.09½	.09½	.09½
.37	.19	...	Croinor	145,200	.28	.31½	.25	.29
.10	.05	...	Cron. Bab.	nil	...	.06	.06	.06
.73	.20	...	Crowpat	35,925	.21	.35	.20	.31½
.00½	.00½	...	Cryderman	nil	...	.01	.03½	.00½
.29	.15	...	Cusco	288,896	.17	.26½	.17	.22
.45	.36	...	Daering Ex.	1,775	.45	.45	.36	.36
1.26	.90	...	D'Aragon	32,305	.61	.61	.55	.56
1.00	.40	...	Decourrey B	106,990	.48	.60	.48	.50
.47	.14	...	Do. warr	12,500	.14	.18	.14	.18
.85	.37	...	Deer Horn	2,000	.40	.47	.44	.47
.32½	.16	...	D'Eldona	13,899	.17	.18	.17	.17½
.90	.70	.04	Delnite	1,500	.73	.73	.73	.73
1.00	.20	...	Desmond	9,200	.21½	.24	.22	.24
.20	.11	...	Detta Min.	11,000	.12	.12	.11	.11
.92	.25	...	Diadem	25,100	.30	.30	.25	.30
.50	.07	...	Dickstone C.	1,000	.16	.16	.16	.16
15.87½	12.75	.70	Dome M.	3,356	12.87½	13.87½	13.00	13.00
.28	.12	...	Dom. Asb.	2,000	.15	.13	.12½	.12½
.70	.35	...	Donalda	207,350	.50	.35	.40	.51
.09	.04	...	Doreen	nil	...	.03	.05	.04
3.05	.50	...	Duvan	41,505	.55	.60	.53	.58
.47	.18	...	Duvex	45,000	.26	.29	.25	.28
1.60	1.00	...	Dyno	7,500	1.01	1.05	1.01	1.01
.13½	.09	...	East Amph.	nil	...	.09	.09½	.09
2.52	1.41	*.05	East Mal.	4,200	1.60	1.58	1.51	1.53
6.75	5.10	*.30	East Sull.	5,405	5.20	5.40	5.25	5.30
1.50	.67	...	East Asb.	6,400	.74	.75	.70	.70
1.08	.45	...	East Metals	17,600	.60	.62	.52	.52
7.70	5.00	...	East Min.	7,779	5.30	5.35	5.10	5.15
.79	.35	...	Elder	9,912	.39	.42	.35	.35
2.80	.36	...	Eldrich	25,500	.44½	.44	.40	.43½
1.20	.99	...	El Pen-Rey	76,450	.41	.40	.35	.40
.36	.09½	...	El Sol	184,400	.32½	.34	.28	.28
.31	.15	...	Emerald	8,000	.17½	.17½	.17½	.17½
2.35	.98	...	Eureka	40,504	1.08	1.07	1.00	1.08
1.20	.59	...	Expl. All.	19,700	.60	.74	.60	.65
.50	.20	...	Fab. Met.	3,500	.25	.24	.21	.21
44.00	29.00	*.50	Falconbridge	2,574	39.00	39.50	37.50	39.00
		+.10						
.40	.21	...	Fano	2,000	.29	.29	.21	.26
2.37	1.05	...	Faraday	29,288	1.21	1.50	1.15	1.43
.70	.50	...	Do. warr.	140	1.46	.55	.55	.55
.72	.20	...	Farw't Tung	6,100	.38	.30	.27	.27
.62	.20	...	Federal	70,550	.44	.48	.42	.45
.01½	.00½	...	Flin Flon	nil	...	.01	.01½	.01
.25	.11	...	Fontana '45	14,250	.11½	.12	.11	.11
.70	.34	...	Forty-Four	nil	...	.40	.42	.45
.26	.07½	...	Francoeur	21,000	.20½	.23	.18½	.20
4.75	3.65	...	Frobisher	14,845	4.00	3.95	3.75	3.80
97.00	78.00	...	Do. 4% deb.	20	80.00	78.00	76.00	78.00
.42	.15	...	Fundy Bay	39,000	.22	.25	.22	.23
.54	.25½	...	Gaitwin	8,850	.30	.30	.26	.26
46.00	34.00	...	Gaspe Cop.	75	42.50	42.50	42.50	42.50
24.00	17.00	...	Geco	3,460	16.25	16.75	17.75	18.00
.64	.31	...	Genex	500	.33	.35	.35	.35
3.90	1.20	...	Geo-Scient.	15,500	1.25	1.40	1.25	1.40
1.05	.36	.06	Giant Mas.	38,775	.43	.43	.36	.42
6.30	4.50	*.30	Giant Y'fe	7,992	5.25	5.25	5.00	5.15
1.60	.64	...	Glenn Ur.	14,624	.73	.77	.73	.76
.46	.31	...	Goldale	3,000	.23	.25	.24	.25
.38	.11	...	Gold Crest	25,600	.14	.14½	.13	.14
.13½	.08	...	Gold Eagle	3,000	.08	.08½	.08	.08
.01½	.00½	...	Gold Lake	1,000	.01½	.01	.01	.01
8.00	2.00	...	Gold Man	5,600	2.40	2.40	2.30	2.35
.60	.20	...	Goldfields	8,700	.26	.29	.20	.22
.45	.14	...	Graham B.	38,700	.17	.19	.14	.19
19.75	12.62½	*.35	Granby	nil	...		14.50	12.62½
.65	.21	...	Grandines	92,450	.31	.34	.27	.28
.75	.42	*.02	Grandoro	nil	...			.72
9.45	4.50	...	Granduc	900	5.10	5.25	5.00	5.10
.22	.11	...	Grandview	nil	...	.11	.15	.11
.03½	.02	...	Great Falls	nil	...	.02	.03	.02
1.09	.35	...	Greyhawk	623,500	.43	.46	.40	.41
.21	.09	...	Gui-Por Ur.	2,000	.10	.10	.10	.10
2.49	.30	...	Gulch	49,891	.38	.59	.36	.54
.26	.11	...	Gulf Lead	23,100	.12	.15	.12	.13
20.50	15.25	...	Gunnar G.	5,915	19.50	19.50	18.75	19.00
12.75	8.50	...	Do. warr.	10,350	9.85	10.25	9.45	10.12½
.28	.12	...	Gwillim L.	23,000	.13	.14	.13	.13
.39	.24	...	Haitian	164,300	.30½	.35	.30	.30½
3.50	3.25	.20	Hallnor	nil	...	3.25	3.45	3.25
.09	.03	...	Hamil	7,500	.04½	.03	.03	.03
.22	.12	...	Hard Rock	16,055	.13	.13½	.12½	.13
1.70	.30	...	Harr. Min.	71,700	.59	.59	.49	.54
.34	.13	...	Hasaga	26,200	.15	.20	.16	.18
.20	.10	...	H'd of Lakes	2,000	.11	.12	.10½	.12
2.09	.81	...	Headway	28,220	1.02	1.15	.98	1.10
.39	.10	...	Heath	89,900	.21	.22	.18	.20
.15	.05½	...	Heva G.M.	23,500	.08½	.09½	.08½	.08½
.97	.70	...	High.-Bell	3,300	.80	.82	.80	.80
30.12½	22.37½	.24	Hollinger	3,340	26.75	27.62½	26.75	26.75
10.87½	6.95	...	Hoyle	5,475	7.10	7.25	7.05	7.10
97.50	64.00	*2.75	Hudson Bay	4,674	81.00	83.50	79.50	83.00
		+21.00						
.42	.09	...	Hudson R.	127,734	.36	.42	.37	.42
.55	.38	...	Hugh Pam	1,500	.40	.36	.36	.36
.31½	.09	...	Imperial	4,500	.12½	.12	.12	.12
.86	.15	...	Indian L.	148,250	.38	.36	.32	.32
.07½	.04½	...	Indian M.	6,000	.05	.05½	.04½	.04½
1.74	1.05	...	Inspiration	15,200	1.15	1.22	1.14	1.15
110.37½	78.25	*1.95	Int. Nickel	10,771	110.37½	103.75	100.00	103.25
		+31.35						
131.87½	124.00	₳7½	Do. pfd.	555	126.00	125.00	124.00	124.00
6.62½	6.25	₳7½	Do. $5 pfd.	nil	...	6.00	...	6.25
1.00	.43	...	Int. Ranwick	2,500	.52	.50	.45	.48
3.85	2.10	...	Irish Cop.	13,325	2.35	2.66	2.25	2.66
4.75	2.20	...	Iron Bay	2,300	2.40	2.50	2.40	2.30
.03	.01	...	Island Lk.	nil	...	.02	.03	.02½
.35	.20	...	Iso Uran.	6,000	.20	.23	.20	.23
1.30	.12	...	Jackson M.	5,000	.15	.14	.13	.14
.40	.19½	₳.01	Jack Waite	1,500	.22	.20½	.20½	.20½
		+.00½						
.52	.22	...	Jacobus	nil	...	.24	.29	.27
.36	.14	...	Jardun	12,000	.15	.15	.14	.15
1.38	.51	...	Jaye	120,903	1.00	1.10	.97	1.10
.94	.38	...	Jeanette	8,470	.50	.50	.48	.50
*..	...	...	Jeep	nil	...	...	...	.22
.39	.09½	...	Jellicoe	486,212	.37	.39	.30	.33
.34	.12	...	Joburke	17,500	.13½	.14	.13	.13
1.59	.73	...	Joliet Que.	32,300	.80	.85	.79	.80
.50	.17½	...	Jonsmith	54,915	.19½	.25	.20	.23
1.39	.82	...	R. J. Jowsey	4,510	.86	.88	.86	.86
.12½	.08	...	Kenville	24,000	.10½	.10½	.10	.10
22.00	17.25	.80	K.-Addison	2,300	17.87½	17.62½	17.25	17.50
.94	.35	...	Kerr Lake	1,000	.60	.40	.35	.35
.13½	.07½	...	Keyboycon	6,500	.08	.09	.08	.09
.90	.47½	...	Keymet	nil	...	.45	.55	.47½
3.10	2.70	...	Kilembe	2,950	3.50	3.05	2.95	3.00
2.20	1.35	...	Do. warr.	2,060	1.45	1.50	1.35	1.50
.95	.38	...	Kirk. H. Bay	94,250	.50	.54	.38	.52
2.09	1.80	...	Kirk. Min.	32,830	1.98	1.98	1.75	1.90
.49	.19	...	Kirk. Town.	1,000	.20	.19	.19	.19
.43	.13	...	Kontiki Ld.	7,000	.18	.17	.15	.16
.05	.02½	...	Koot. Base.	500	.03	.02½	.02½	.02½
25.00	18.00	...	Labrador	3,000	20.50	20.87½	20.50	20.75
3.75	.55	...	Lk. Cinch	50,800	.65	1.15	.69	1.00
3.53	1.81	...	L. Dufault	39,334	1.95	2.59	2.05	2.59
.35	.12	...	L. Lingman	3,000	.12	.14½	.13½	.13½
.38	.18	...	Lk. Osu	3,000	.20	.19	.18	.18
6.00	3.90	1.10	Lk. Shore	235	4.05	4.10	4.00	4.00
.37	.30	...	Lk. Wasa	1,800	.30	.20	.20	.20
4.45	2.85	.10	La Luz	1,000	3.85	3.90	3.90	3.90
3.55	2.60	*.20	Lamaque G.	nil	...	2.68	2.85	2.70
1.08	.88	*.08	Leitch Gold	6,250	.87	.95	.90	.91
.41	.12	...	Lencourt	9,500	.13	.14	.13	.13
.29	.14½	...	Lexindin	1,600	.19	.17	.17	.17
.24	.12	...	Lingside	9,000	.13	.13	.12½	.12½
2.50	.65	...	Lithium	1,000	.70	.80	.79	.80
3.35	1.39	...	Little L.L.	7,900	1.67	1.89	1.70	1.89
.26	.06½	...	Lomega	99,740	.13	.17	.13	.17
2.18	.91	...	Lorado Ur.	45,350	1.05	1.18	1.05	1.18
.40	.17	...	Louvicourt	8,500	.22	.23	.20	.20
3.50	1.15	...	Lyndhurst	70,750	1.29	1.44	1.25	1.35
.17½	.08	...	Lynx Yk.	1,500	.10½	.09	.09	.09
3.30	1.81	*.09	Macassa	2,710	1.97	2.05	1.99	2.00
		+2.03						
1.31	.85	...	MacDonald.	1,700	.73	.71	.70	.70
.24½	.09	...	Macfie	5,500	.13	.14	.11	.14
.62	.32	...	Mackeno	47,875	.44	.45	.40½	.41
1.03	1.19	*.05	Macleod	8,900	1.43	1.42	1.31	1.35
2.70	2.15	*.05	Mad. R.L.	5,450	2.30	2.34	2.20	2.34
		+.05						
.21½	.08½	...	Magnet	6,500	.11	.12	.09	.11
1.65	1.25	*.05	Malartic G.	9,450	1.36	1.35	1.30	1.35
.41	.19	...	Maneast Ur.	11,300	.20	.25	.19	.20
.49	.17	...	Maralgo	2,000	.21½	.24	.21½	.24
.25	.11	...	Marcon	9,675	.15	.15	.14	.14
3.20	2.15	...	Maritimes	78,520	2.65	2.83	2.65	2.80
.39	.11	...	Martin McN.	17,000	.11½	.14	.11	.12
.65	.20	...	Massberyle	nil	...	...	...	.25
.95	.60	...	Matachewan	nil	...	.60	1.10	.63
2.20	.81	...	Maybrun	77,150	1.02	1.10	.97	1.07
93.50	76.00	2.00	McIntyre	1,139	79.00	80.75	78.50	80.00
		+1.00						
.45	.30	...	McK. R.L.	1,600	.30	.35	.31	.31
.25	.10	...	McMarmac.	93,600	.11	.11	.10	.11
.70	.28	...	McWatters	4,400	.30	.30	.30	.30
1.37	.45	...	Mentor Exp.	10,700	.52	.52	.50	.50
.56	.25½	...	Mercedes	13,318	.47	.50	.46	.47
4.65	2.05	...	Merrill Is.	38,450	2.45	2.50	2.31	2.32
.47	.20	...	Meta Ur.	26,500	.23½	.23	.21	.23
2.20	.81	...	Midrim	247,337	1.96	2.04	1.73	1.89
1.07	.45	...	Midwest	40,150	.69	.78	.70	.76
2.00	1.15	...	Milliken L.	63,900	1.32	1.34	1.20	1.26
.42	.17	...	Mindamar	2,400	.20	.19	.17	.19
39.37½	22.00	*.50	Mng. Corp.	320	23.00	23.00	22.37½	22.37½
		+2.25						
.95	.36	...	Min. End.	315,200	.48	.62	.46	.56
1.00	.20	...	Min-Ore	10,011	.31	.25	.20½	.24½
1.48	.59	...	Mogador	1,100	.60	.58	†.50	†.50
2.95	2.70	...	Mogul	66,220	3.10	3.15	2.93	2.95
1.74	1.00	...	Molybd'nite	400	1.05	1.00	1.00	1.00
.80	.68	*.06	Moneta	5,070	.67	.68	.66	.67
3.35	1.70	...	Montgary	26,750	2.00	2.50	2.00	2.49
.79	.74	...	Mon Pre	42,100	...	.79	.74	.78
.11½	.08½	...	Montpas	nil	...	.07½	.08	.07½
1.83	1.10	...	Multi-Min.	1,300	1.15	1.20	1.15	1.15
2.15	.85	...	Nama Cr.	10,200	.90	.92	.85	.85
1.47	.41	...	Nat. Ex.	34,700	.45	.51	.45	.50
.45	.20	...	Nello Min.	nil	...	.21	.39½	.20
4.10	1.00	...	Nesbitt L.	13,700	1.12	1.30	1.15	1.19
.41	.10	...	N. Alger	16,100	.13	.18	.14½	.18
.53	.20	...	N. Athona	26,725	.65	.84	.67	.75
.31	.10½	...	New Bidl'e	16,700	.14½	.17	.11½	.15
1.30	.60	...	N. Calumet	8,300	.60	.63	.60	.63
1.15	.41	...	N. Delhi	26,750	.62	.65	.53	.55
2.05	1.45	*.05	N. Dick'n	2,550	1.45	1.50	1.45	1.45
.65	.06	...	N. Formaque	107,300	.48	.53	.45	.51
.82	.21	...	N. Fortune	43,200	.28½	.30	.25	.26
4.50	.14	...	N. G'dvue	9,250	.18½	.19	.14	.16
.40	.17	...	N. Har'na	2,700	.20	.21	.21	.21
1.19	.50	...	N. H'ridge	25,900	.63	.84	.53	.62
.20	.10	...	N. Hosco	1,000	.25	.21½	.20½	.20½
.79	.14	...	N. Jack Lk.	53,300	.41	.46	.37	.40
.54	.14	...	N. Jason	18,000	.16	.17	.15½	.16
.33	.16	...	N. Kelore	19,000	.18	.19½	.16½	.19
5.65	4.50	...	Newkirk	5,826	5.25	5.35	5.00	5.35
.80	.30	...	N. Lafayette	1,500	.36	.33	.30	.33
1.14	.35	...	Newlund	49,130	.42	.44	.40	.43
1.55	.70	...	N. Man.	19,700	1.00	1.19	.93	1.18
.96	.23	...	N. Minda-S.	118,235	.54	.59	.50	.51
.27	.12	...	N. M'l'que	6,000	.13	.14	.12	.12
.17	.10½	...	Newnorth	3,400	.10½	.13	.12	.13
2.03	1.47	...	N. Pac. Coal	4,100	1.55	1.58	1.50	1.50
.31½	.09	...	N. Rouyn	6,700	.17	.21	.17	.20
7.60	2.38	...	N. Royran	15,862	3.75	3.80	3.55	3.70
.16	.09	...	N. Santiago	29,000	.12½	.13	.12	.13
.20	.06	...	N. Senator	10,500	.09	.09	.08	.09
.37	.22	...	N. Taku	3,315	.23	.24	.22	.24
.35	.12½	...	N. Thurbois	2,700	.15	.14½	.13	.13½
1.00	.10	...	N. Vinray	24,100	.10	.11	.10	.11
5.05	1.37	...	Nickel Rim	7,405	3.75	3.90	3.70	3.80
5.25	2.57	...	Nipissing	7,520	3.50	3.65	3.45	3.65
.43	.09	...	Nisto	29,500	.12	.13½	.12	.12
.15	.06½	...	Nocano	nil	...	.08½	.10	.09
1.46	.42	*.01½	Nor-Acme	11,700	.60	.60	.51	.51
66.62½	51.50	2.00	Noranda	3,168	58.25	59.75	58.00	58.50
.56	.13	...	Norgold	7,200	.17	.19	.17	.17
.17	.10	...	Norlartic	nil	...	.13	.14	.13
7.30	6.40	*.45	Normetal	4,807	6.75	7.00	6.85	6.90
2.00	.46	...	Norpax	202,550	1.50	1.70	1.51	1.55
.64	.50	...	Norsy'maque	4,875	.50	.50	.50	.50
1.50	1.40	...	N. Am. R.M.	13,800	...	1.50	1.40	1.45
.14½	.07	...	North Inca	21,500	.08	.08	.07	.08
1.67	.80	...	N. Kelore	671,980	1.33	1.85	1.35	1.60
2.00	.56	...	North Can.	8,300	1.30	1.56	1.26	1.56
5.05	2.15	...	Nohth-Span	24,5..	.10	4.25	4.00	4.25
.51	.19	...	N.W Vent	3,000	.20	.22	.20	.20
.85	.25	...	Norvalle	15,500	.29	.30	.24	.27
.10	.02½	...	Nuclear	nil	...	.02½	.03	.03½
.85	.35	...	Nudulama	8,500	.45	.45	.40	.44
.75	.30	...	Obalski	13,800	.35	.37	.30	.36
.27	.07½	...	Obaska	2,000	.06	.09	.09	.09
1.50	.67	*.02	O'Brien	2,200	.78	.80	.78	.78
.41	.11½	...	Ogama	19,500	.27	.28	.25	.25
1.30	.55	...	Oka	15,100	.65	.70	.55	.65
.45	.19	...	O'Leary	45,125	.24	.33	.24	.28
.12	.04	...	Omnitrans	26,500	.08	.09½	.08	.08
1.20	.48	...	Opemisca	9,100	.65	.66	.58	.60
19.87½	8.20	...	Opemiska	14,365	14.50	15.25	14.50	15.12½
.27	.16	...	Orchan	3,000	.17	.18	.17	.17
.57	.20	...	Orenda	155,410	.37½	.43	.30	.40
.94	.40	...	Ormsby	10,600	.46	.46	.41	.41
.63	.34	...	Osisko	1,000	.33½	.37	.37	.37
.16	.10	...	Pac. East	11,500	.11	.12	.11	.12
.62	.27½	...	Pac. Nickel	2,200	.49	.45	.43	.45
.02½	.01	...	Packsack	nil	...	.01½	.01½	.01
.78	.49	...	Pamour P.	804	.50	.49½	.49½	.49½
.23	.09½	...	Paramaque	9,000	.11	.11	.11	.11
.19	.09	...	Parbec	6,000	.05	.04½	.09	.09½
1.53	.55	...	Pardee	9,700	.60	.62	.58	.60
1.90	.69	...	Pater	11,300	.75	.80	.72	.80
6.75	4.40	*.60	Pato Cons.	11,528	5.00	5.20	5.00	5.10
		+.75						
.39½	.25	₳.01½	Paymaster	7,500	.30	.30	.28	.29
5.15	3.60	1.35	Pend Oreille	1,100	3.75	3.90	3.60	3.60
.58	.55	...	Pennbec	11,500	.58	.58	.56	.56
.34	.25	...	Perron Gold	nil	...	.25	.30	.25
2.25	1.25	.10	Pickle Crow	18,671	1.30	1.40	1.26	1.30
2.10	1.53	*.12½	Pioneer G.	5,000	1.55	1.56	1.53	1.55
.18	.10	...	Pitch-Ore	9,000	.11	.11	.10	.10
.36	.14½	...	Pitt G.	30,000	.14½	.16	.15	.15
14.87½	12.00	*.50	Placer Dev.	3,445	13.50	13.62½	13.00	13.50
.33	.10	...	Porc. Prime	nil	...	.11	...	.10½
1.43	.27	...	Portage	26,500	.79	.78	.65	.70
.62	.50	...	Powell R.	nil	...	.45½	.46	.50
2.23	.05½	...	Prem. Bord.	24,500	.12½	.19	.12½	.15
8.30	5.60	.08	Preston E.	200	5.85	5.85	5.85	5.85
9.40	4.50	...	Pronto	350	4.75	4.80	4.70	4.70
5.40	1.20	...	Do. warr.	1,020	1.50	1.65	1.50	1.60
2.55	1.50	...	Prospectors	7,400	1.85	1.94	1.82	1.82
.45	.15	...	Purdex	5,800	.18	.20	.16	.18½
.90	.39	...	Quatino	20,700	.45	.45	.42	.45
4.85	1.65	•	Que. Chib	45,983	2.00	2.23	1.95	2.15
3.50	1.30	...	Que. Cop.	28,100	1.70	1.80	1.60	1.72
.32	.09½	...	Que. Lab.	27,100	.17	.16	.14½	.14½
13.00	9.85	...	Que. Lith.	2,875	10.37½	10.50	10.00	10.12½
1.94	.80	...	Que. Man.	2,000	.95	.92	.92	.92
4.60	2.40	...	Que. Met.	6,479	3.00	3.00	2.75	2.80
1.35	.44	...	Que. Smelt.	27,390	.92	.95	.35	.86
.30	.19	...	Queenston C.	25,100	.22	.29	.24	.27
30.00	22.25	*1.50	Quemont	1,998	23.00	24.00	22.75	23.75
1.80	.95	...	Radiore	8,300	1.00	1.04	1.00	1.03
2.50	1.30	...	Rainville	1,600	1.61	1.65	1.57	1.65
6.05	1.70	...	Rare Earth	2,850	2.09	2.00	1.93	1.99
2.85	1.30	...	Rayrock	12,755	1.50	1.60	1.45	1.50
.06	.02	...	Red Cloud	1,000	.03	.02½	.02½	.02½
.39	.13½	...	Red Crest	60,100	.24	.24	.20½	.22
.15	.03½	...	Red Hawk	5,500	.08½	.08	.08	.08
2.70	1.90	*.12½	Reeves McD.	nil	...	1.90	1.95	2.00
2.60	2.25	*.15	Renable	nil	...	2.25	2.35	2.25
.75	.19	...	Rexspar	41,900	.44	.50	.44	.49
.08	.01½	...	Rice Lake	nil	...	.03	.05	.04
.34	.16	...	Rio-Rup.	5,000	.17	.18	.17	.18
1.20	.60	...	Rix-A'basca	5,825	.65	.65	.61	.61
.26	.11	...	Roche L.L.	10,000	.13	.14	.13	.14
.70	.20	...	Rockwin	6,000	.30	.30	.25	.29
.24½	.11	...	Rowan Con.	5,000	.11	.12½	.11	.12½
.24	.14	...	Ryanor	2,000	.15½	.14½	.14	.14½
1.19

Market Bid and Ask Quotations

Montreal & Toronto

	Bid	Ask		Bid	Ask
xAbbican	75	76	Algom	16½	17
Abitibi	36½	37	Do deb	91½	92
Do pr	22½	24	xAlgo wa	750	795
Acad-Atl	9	9½	Algoma	113	113½
Do A	19½	20	Aluminm	124½	125
Do pr	96	97	Do 1 pr	23	25
xAcad U	13	14	Do 2 pr	48½	49½
xAcme Gs	19	19½	xAm-Lrdr	18	22
Admiral	15½	16½	xAm Ledc	88	90
xAdvocat	475	495	xAm Nep	201	205
Agnew-S	7½	7½	xAmurex	620	650
Do pr	9½	9½	xAnacon	235	239
xAjax	83	91	xAnchor	16	17
xAkaitcho	45	..	Ang-A Ex	13½	13
xAlba Ex	18	20	Ang C Ppr	51½	51½
xAlta Di	150	165	Anglo-C T	41½	42
Do vt	135	140	Anglo Hur	11½	12
xAP Cons	46	48	xA Royn	130	132
Antlers Im	24½	25	xAumaqu	13½	14
xApex R	12½	13	xAunor	200	..
xArcadia	242	245	Auto El	13	13½
xArcan	46	45	Do A	10	..
xArea	33	37	Auto Fab A	5	5
Argus	18½	19½	Do B	100	200
Do 2.40 p	51	53	xAvillabon	9	10
Do 2.50p	42½	42½	xBagamac	10½	11
xArjon	15	16	Bailey SA	17½	17½
Aro Equp	..	25	Do pr	35	35½
xAscot	15½	18	xBanff	28	31
Ashdwn A	13½	..	xBankfield	9½	10
Do B	12½	13½	Bnk Mont	53½	53½
xAsh Tm	275	325	Bank NS	58½	59
Do B	..	9	Bk Can	41	41½
Atlan Ac	6	6½	Barb-Ellis	42	..
Do pr	15½	18	Barcelona	490	700
Atlas St	28½	30	xBarnat	51	54
xAtlas Yk	14	15	xBarvue	70	72
xAtlin-Ruf	12½	14½	xBarymin	260	263
xAubelle	13	15	xBa Met	67	68
xAumacho	46	47	Baska	20	21

DIVIDEND NOTICES

dividend notice

Notice is hereby given that a Dividend at the rate of Thirty-Two and One-Half Cents per fully paid share in the Capital Stock of the Bank has been declared for the quarter ending October 31st, 1956, and that an Extra Distribution at the rate of Twenty Cents per fully paid share in the Capital Stock of the Bank has been declared for the year ending October 31st, 1956, payable at the Head Office and Branches of the Bank on and after November 1st, 1956 to shareholders of record at the close of business on September 28th, 1956. Subscribers to new shares are reminded that they will rank for the purposes of this Dividend and Extra Distribution, in the proportion that the amount paid on such new shares on or before September 28th, 1956 bears to the subscription price of $32.00.

By Order of the Board.
Toronto, September 20, 1956.

A. T. Lambert,
General Manager

THE TORONTO-DOMINION BANK
THE BEST IN BANKING SERVICE

WORLD-WIDE BANKING — CHASE MANHATTAN — CHARTERED 1799

DIVIDEND NOTICE

THE CHASE MANHATTAN BANK
NEW YORK, N.Y.

The Chase Manhattan Bank has declared a dividend of 60c per share on the 12,000,000 shares of the capital stock of the Bank, payable November 15, 1956 to holders of record at the close of business October 11, 1956.

The transfer books will not be closed in connection with the payment of this dividend.

MORTIMER J. PALMER
Vice President and Secretary

LOWER ST. LAWRENCE POWER COMPANY

HEAD OFFICE, RIMOUSKI, P.Q. CANADA

DIVIDEND NOTICE

A quarterly dividend of 22½c per share on the 4½% Cumulative Sinking Fund Redeemable Preferred Shares has been declared, payable November 1, 1956, to shareholders of record at the close of business, on October 15, 1956.

By order of the Board.

P. E. GAGNON,
Secretary.

RIMOUSKI, Que.,
October 9, 1956.

INVESTORS MUTUAL OF CANADA, LTD.

DIVIDEND NOTICE

Notice is hereby given that a dividend of 10 cents per share has been declared on the outstanding Capital Stock of the Company, payable on November 14th, 1956, to shareholders of record at the close of business on October 31st, 1956.

E. G. O. HOWARD,
Secretary.

Winnipeg,
October 10th, 1956

JAMES B. CARTER LIMITED

CLASS A DIVIDEND 5

Notice is hereby given that a half yearly dividend of thirty cents per share has been declared on the outstanding Class A shares of the Company, payable November 1, 1956, to Shareholders on record at the close of business October 15, 1956.

By Order of the Board.

ERIC WILLIAMS,
Secretary.

Winnipeg, Manitoba,
October 12, 1956.

A. V. ROE CANADA LIMITED

DIVIDEND NO. 1

Notice is hereby given that a Dividend of Twenty Cents (20c) per share on the Comon Shares in the Capital Stock of the Company, payable on the second day of January, 1957 to shareholders of record at the close of business of the 14th day of December, 1956.

By Order of the Board of Directors.

Toronto, 15th October, 1956.

AMERICAN NEPHELINE LIMITED

DIVIDEND NO. 7

NOTICE IS HEREBY GIVEN that a dividend of Two Cents (2c) per share has been declared by the Directors of American Nepheline Limited, payable in Canadian funds, on November 9, 1956, to shareholders of record October 22, 1956.

By Order of the Board,

D. D. ANDERSON,
Secretary.

October 12, 1956.

DOMINION GLASS COMPANY LIMITED

Notice is hereby given that an extra dividend of Sixty Cents (60c) per share has been declared on the Common Stock of the Company, payable Thursday, the 15th day of November, 1956, to shareholders of record at the close of business Friday, the 26th day of October, 1956.

By Order of the Board.

T. B. KING,
Secretary.

Montreal, 26th September, 1956.

A. J. FREIMAN LIMITED

Notice is hereby given that the quarterly dividend of 1⅛% upon the outstanding Preference Shares of the Company and twelve and one-half cents (12½c) per share on the Common Shares has been declared.

These dividends are payable on and after the first day of November, 1956, to holders of record at the close of business on the 25th day of October, 1956.

DATED at Ottawa this 9th day of October, 1956.

LAWRENCE FREIMAN,
President.

DOMINION STEEL AND COAL CORPORATION LIMITED

DIVIDEND NOTICE

Notice is hereby given that a regular quarterly dividend of twenty-five cents (25c) per share on the outstanding Ordinary shares without nominal or par value of the capital stock of this Corporation has been declared for the quarterly period ending September 30, 1956. Such dividend to be payable on October 30, 1956, to shareholders of record at the close of business on October 12, 1956.

By Order of the Board.

G. C. BROADBENT,
Vice-President
and
Secretary and Treasurer.

MONTREAL, P.Q.,
September 28, 1956.

FISHER & BURPE LIMITED

NOTICE OF DIVIDENDS

NOTICE IS HEREBY GIVEN that the following dividends have been declared payable on or after November 1, 1956 to shareholders of the Company of record at the close of business on October 15, 1956:

1. A semi-annual dividend of forty cents (40c) per share (being dividend No. 17) on the Class "A" shares without nominal or par value in the capital stock of the Company.

2. A dividend of thirty cents (30c) per share (being dividend No. 12) on the Class "B" shares without nominal or par value in the capital stock of the Company.

DATED at Winnipeg, Manitoba, this 11th day of October, 1956.

By Order of the Board,

R. A. DAVIES,
Secretary.

YANKEE CANUCK OIL & MINING CORPORATION LTD.

NOTICE TO UNREGISTERED SHAREHOLDERS

An important development program including the drilling of oil wells and diamond drilling of mining claims is now being conducted by Yankee Canuck Oil & Mining Corporation Ltd. In order that all shareholders may receive progress reports on these developments, we request that you have your shares registered in your own name.

A brochure and other up to date information may be obtained by writing to:

Yankee Canuck Oil & Mining Corporation Ltd.,
101 Alexandra Bldg., Edmonton, Alberta.

	Bid	Ask		Bid	Ask
xBata	12	13	Cockshutt	6¼	6½
Ba Innes	..	9½	xCody-R	70	72
Bath P A	59	60	xCoin Lk	13	15
Do B	38	40½	xCldstrm	200	205
xB-Duq	208	212	Collwood	11½	..
Beatty	6¾	7	Do pr	11½	..
xBeaucag	290	295	xColomac	11	12
xB Lodge	35	..	Comb Ent	10½	10½
Beav Lbr	17½	17½	xCommoil	300	375
Do A	21	..	xC Pete	410	435
Do pr	..	22½	Conduits	10½	11
xBelcher	280	285	Conf Life	156	163
Bell Phone	46½	46¾	xConiagas	230	240
xBelleter	200	205	xConrum	42	45
xBethleh	274	275	xConro	22	23
xBeveon	29	32	xC Alenbe	15½	16
xBibis	9	12	Con Baks	6¾	8
xBicroft	276	278	xC Belkno	45	48
Do wts	115	125	xC Beta G	23	25
Bidcop	58	67	xC Cali	27	28
Biltmore	7	7½	xC C Cad	13	15
Do pr	12½	13	xC Crdsn	23	25
xBlk Bay	70	74	C Denison	910	915
Blue Rib	11	12	Do wts	345	350
Do pr	36½	40	xC Disc	320	335
xBonville	10	10½	xC Dragon	68	72
xBordulac	12	13	xC E Crest	60	68
xBouscad	15	17	xC Fnmre	143	145
xBouzan	162	165	Do B wt	20	33
Bowatr pr	45¾	48¾	Con Fire	7	10
Bowes	20	24	C Foods C	16¾	17½
xBoymar	9	9½	xC Gillies	12	13
xBralorne	500	515	xCG Arro	22	23
xBralsam	102	105	xC Guay	30	32
Br Cord A	17½	18	xC Hallwl	201	205
Do B	9½	10	Con Mar	26	33
Brazil	7½	7¾	xC Hwy	390	400
Do pr	90	115	xC Marb	30	36
Br Tank p	46½	46¾	xC M Mc	485	490
xBr Tk w	320	..	C M & S	28½	29¾
Bright	14	15½	xC Morrsn	29	30
Do pr	18	20	xC Mosh	65	70
xBrilund	75	78	xC Negus	21	23
xBritalta	295	299	xC Nichol	11½	12
BA Oil	45½	46	xC Nthlnd	95	99
BCE 4 p p	82½	83	xC Peak	11	11½
Do 4½pp	40	42½	xC Prs A	230	250
Do 4½pp	..	45	Do B	100	150
Do 4½pp	94	94½	xCon Que	52	55
Do p p	49	49	xC R Pop	30½	34
BC Forest	13½	14	xC Rgert	109	114
BC Pak A	14½	14¾	xC Snorm	12½	15
Do B	13½	13¾	xC Sud	370	375
BC Phone	44½	45	C Textile	400	450
Do Ph r	130	135	xC Thor	21	26
xBroul R	131	132	xC Tung	36	36
Bruck A	71	10	C W Pete	900	915
Do B	300	300	Con Gas	27½	28
xBrunhrst	9½	11	Con Glass	..	20
xBrunsmn	10½	11	xConwest	605	675
xBrunston	13	13½	C Clark	475	475
Brunswick	10	10½	xC Cliff	360	370
xBuffadison	9	10	xC Corp	147	160
xBuff Ank	65	75	xCopcrst	58	60
Do Cdn	14	14½	xCop-Man	16	17
Do RL	8	8½	Corby vt	15½	16
Build Pro	32½	33½	Do B	15½	15¾
Bullochs A	..	71	Cosmos	12½	12¾
Do B	42	51	xCouble	112	115
xBkr Hill	12	13½	xCournor	13	15
xBurchell	35	39½	xCowchn	135	136
Burlington	28	29	Craig Bit	7	7½
Burns	12½	12¾	xCree O	490	510
Burrard A	71	71½	xCrestaur	10	10½
xCalalt P	140	148	xC Brook	465	490
Caldwell	..	14	Do pr	47½	48
Do 1 pr	21½	23½	Do wts	146	150
Do 2 pr	12	..	xCrolnor	26	27½
Cal Ed	23¼	26	Cr Cork	48	..
Cal Pow	62	62¾	Cr Trust	23	23½
Do 5pcp	103½	105	Cr Zell	52½	53½
xCalva C	475	500	xCrowpat	32	36
Ca Chib	16½	16¾	Crow's N	205	210
xCmp RL	565	570	xCusco	22	24
xC Bread	300	500	xD'Aragon	53	56
Do B	50	60	Davis A	9½	10
Can Cem	29	29½	Do B	300	400
Do pr	21½	29½	xDe Cour	55	57
CCC Ston	7	7½	Do wts	17	18
Can Foils	10½	11	xD Horn	40	48
Do A	14½	17	xD'Eldona	16	17½
C Fndry A	28	29	xDelnite	66	72
Do Com	..	132	xDel Rio	365	370
Cl Fndry	33½	33¾	xDesmont	27	28
Do 4½	100	101	xDelta	11	13
Can Life	149½	155	xD-Leduc	153	160
C Mach	10	10½	Dist Seag	32½	33¾
C Malt	54½	56	xD Expl	95	99
Do pr	23½	23¾	Dome	12½	13
xC Oil Ld	325	340	Dom Ang	400	..
Do wts	185	197	Do pr	95	..
C Pack A	36	38½	xD Asbsts	12½	14
Do B	36½	37	x Daer Ex	30	41½
C Perm	87½	88	D Coal pr	81	91
C Safe 4pp	93	93½	D Dairies	7	8
xCS Oil w	100	125	Do pr	16	17½
xCS Pete	475	490	xDiadem	28	29
CSL	25	28	D Cor Co	14	14½
Do pr	121	121	Dom Elect	12	13½
C Wire A	180	..	Dom Fab	102	..
Do B	n 19	19½	Do pr	24	24
xC Ad Oil	46	50	D Fndry	28½	29
xC Astoria	28	30	Do pr	99½	99½
xC Atl O	635	665	Dom Ins	210	..
C Bak	5	6	D Magnes	16½	17
C Bk Co	53½	54½	Dom Scot	28	30
C Brew	26½	26¾	Do pr	45	48
Do pr	27½	27¾	D Steel o	22	22½
xC Brit E	52	55	D Stores	38	39
C Can	42½	43	Dom Tar	14	14½
Do Dp R	41½	..	Do pr	..	21
C Celan	14½	15	Dom Text	7¾	8
Do $1 pr	15½	20	Do pr	137	..
Do 1.75p	28½	30½	xD Wool	..	125
C Chem C	8	8½	xDonalda	46	47
C Collrs	7½	8	D Ropes B	14	14¾
xC Coll p	87	88	xD & M	120	130
C Conv	350	450	Donchue B	28½	29
Do B	400	..	Dow Brew	35	36
xC Decal w	51	55	xDuvan	75	77
xC Dev P	650	665	xDuvex	26	27
C Dredge	21	21½	xDyno	103	105
xC Ex Gs	550	565	EA Amphi	8½	10
C Fairbks	23	26	E Koot	6¼	..
Do pr	125	..	xE Malart	150	155
xCF Prod	325	325	xE Sull	530	..
Do A	8	8½	xE Asb	70	75
Do pr	53	59	xE Metals	53	55
CGE	800	995	xE Petrol	500	505
CG Sec A	20½	21	East Steel	5	5½
Do B	20	20	Easy Wash	13	15
xC Hmstd	200	210	Do pr	15½	18
C Hyd Car	10	10½	Econ Inv	36½	37
C Iee Ma	7½	7¾	Eddy	54½	57
Do A	11½	11¾	xElder	36	40
C Loco	29	31	xEldrich	41	43
xC Malart	39	41	xElcta (C)	96	..
C Oil	25½	26	Electrolux	13	14
Do pr	..	160	xE Pen-R	37	39
Do 5 pc	..	103	xEl Sol	26	27
Do 4 pc	..	93	xEm Glcr	17½	18
Do ws 53	10½	10¾	Emp Life	77	80
Do ws 55	5	5½	Equit Life	46	48
CPR	33	33¼	Erie A	6¾	..
C Petro p	27½	27¾	Do B	250	..
C PL Pet	330	340	Estabks pr	20	20
xC Prosp	..	460	xEureka	95	96
C Salt	18	20	xExcelsior	80	85
C Tire	116	130	xExpl All	61	65
Do pr	20½	..	Falcnbdge	37½	37¾
C Util pr	97½	98	Fam Play	16½	16¾
Do 4½% p	..	83	Fanny F	20	20½
C Vickers	31	31¾	xFarday	135	140
C Wall A	13½	14¼	Do wts	47	50
Do B	13½	15	xFargo	250	295
CWN G pr	16½	18	xF'w Tung	29	30
xC Willis	300	350	Fed Fire	33	..
xCanadus	164	165	Fed Grain	28	31
xCanam	70	72	Do pr	27½	27¾
xCan-Erin	90	91	xFed Kirk	41	42
xCan-Met	163	165	xFibre	5½	..
Do wts	75	80	Do pr	350	400
xCanso N	153	160	Fittings	61	61
Canso Oil	215	225	Do A	10	10½
xCariboo	53	60	Flash F pr	18	..
xCassiar	300	320	xFleet M	100	110
xCastle	375	400	Ford	39	59½
C Can Inv	30	..	Do A	124½	125
Do pr	100½	..	Do B	124	..
xCent Ex	375	385	Foundat'n	21	21½
xCent Led	448	450	xFrncoeur	18	19
xCent Pat	106	115	Fraser	35½	35¾
xCent Por	13	13½	Fremn pr	..	95
xChart O	191	195	xFrobish	375	380
Chart Tr	55½	57	Do debs	79	80
Chatco	12½	12¾	xGaitwin	26	26
Do pr	..	6	Gatineau	29½	29½
Chat-Gai	15	15	Do $ pp	101	102½
xCh Res	480	485	Do 5pp	..	108
xCheskirk	9	10½	Geco M	17½	17¾
xChstrville	32	33	Gen Bake	5	5½
xChib Jac	405	410	Gen Dyn	46¼	47¾
xChib-Kay	49	51	Gen Elect	..	63
xChib M	280	290	GMC	46¼	46¾
xChib Ex	78	80	xG Pete	550	580
xChimo	90	91	Do A	540	550
xChrom	281	310	Do B	39	..
Chrysler	74½	75½	GP Mfg A	..	35½
xCirc Bar	300	300	Do B	39	..
Do A	5	9	GS Wares	81	83
xCobalt	55	58	Do pr	85½	96
xCoch W	87	93	xGenex	33	40
Coch-D	16½	16¾	xG Scien	130	135
Do A	15	17	xGt YK	515	525

Blue Ribbon CORPORATION LIMITED

Notice is hereby given that a dividend of sixty-two and one-half cents (62½c) per share on the preferred shares of the Company has been declared payable on and after the 1st day of November, 1956, to shareholders of record at the close of business on the 15th day of October, 1956.

Dated at Winnipeg this 5th day of October, 1956

L. G. KEITH,
Secretary-Treasurer

	Bid	Ask		Bid	Ask
xGl Uran	75	79	xNama Cr	100	103
xGoldale	24	25	Nat Drug	10½	11
xGoldcrest	14	14½	Do pr	11½	12
xG Eagle	8	9½	xNat Ex	49	51
FP — GF	—	14—	Nat Gro	20	22
xGold M	225	235	Do pr	26½	26½
xGF Uran	23	24	N Hos A	430	475
Goodyear	146	154	xN Hos B	430	500
Do pr	48½	50	Nat Lead	108½	109½
G Macky A	6¾	7½	xNat Pete	375	395
Do B	6	7	N St Car	26	28½
Grafton-A	13½	15½	Nat Trust	40¼	42
xG Bousq	16½	18½	xNello	22	25
Granby	..	14½	xNes Lab	115	118
Gr Toy	36	49	xN Alger	28	29
xGrandines	29	30	xN Athon	70	73
xGranduc	460	500	xN Bid	13	15
GL Paper	39½	39¾	xN Brist	130	134
GN Gas	6	6½	xN B Dom	210	215
Do pr	41½	43	xN Cal	60	61
Do wts	320	350	xN Cham	229	230
Gr Pt Dev	41½	43	xN Conc	29	30
xGr Sw G	300	305	xN Cont	63	67
GW Coal A	9½	10	xN Davies	22	24
Do B	8½	9	xN Delhi	47	50
Gr West	20	20¾	xN Dicke	150	153
xGreenug	450	575	xN Fortun	25	27
xGryhawk	37½	38	xN Gas E	135	138
Gridoil	9½	10¾	xN Goldvu	16	19
Guar Tr	21	21½	xN Harric	20	21
xGulch	47	49	xN Highri	58	60
xGlf Lead	13	14	xN Hosco	22	25
Gunnar	19½	19¾	xN Jason	15½	16
Do wts	1035	1050	xN Kelore	17	18
xGurney	275	400	xNewlund	45	48
Do pr	201	22●	xN Man	113	114
xGwillim	13½	14	xN Minda	48	50
Gypsum n	28	29	xN Mylam	12	14
Hahn	18½	31	xNewnor	12	13
Do A	15	16½	xN Rouyn	14	18
xHallnor	325	345	xN Royrn	355	360
H Cotton	13½	15	xN Senator	9	9½
Do pr	..	100	N Super	225	229
Har Carpet	7½	7¾	xN Taku	24	25
xH Rock	12½	13	xN Thurb	13½	14½
xHar-Min	60	63	xNick R	375	380
Hartz A	8¼	9	xNipissin	340	345
xHasaga	15	16	Nisto	12	12½
xH of Lks	11½	12	xNor-Ac	32	55
xHdway	107	110	Noranda	58½	59
xHeath	18	19	xNordon	15	25
xHees	350	400	xNorgold	16	17
Hndsht new	6½	7½	xNorlartic	13	14
Do pr	96	97	xNormet	690	700
xHeva	8	9	xNorpax	132	153
xHigh C	34	36	xNorsey Co	44	50
xHigh-B	40	40	xNorthcal	120	125
Highwood	37	39¾	xNC Oils	600	610
H Dauch	41	49	Do wts	290	340
Hi-Tower	9½	9½	Do pr	36½	37½
xHoldn A	200	300	xNor Inca	7½	8
Do B	..	200	xN Rank	168	169
Hollinger	26½	27½	xNorthsp	400	405
Home O A	12½	13¼	North St	14½	14½
Do B	11½	12	Do wts	6¼	7
H Smith	37½	37¾	Do pr	42½	42½
Do pr	45¼	..	Do 56 w	260	295
xHoyle	700	720	xN Can	150	152
Hud Bay	84	84½	NQ Pow	27	30
xH-Pam	36	39	Do 1 pr	..	49
Hghs O B	12	..	NW Util p	79½	81½
Do pr	25¼	..	xNorthld	75	80
Hur Erie	34½	35	xNorvalie	27½	28
Husky	12½	12¾	xNudulam	46	47
Do wts	575	600	Oak Wood	9	..
Imp Bank	55	..	xObaska	8¼	9
Imp Fl-Gl	25	26½	xO'Brien	72	80
Do pr	..	27½	Office S	16½	18½
Imp in C	..	12	xOil Sel	18	20
Imp Life	58	60	xOka Rare	68	72
Imp Oil	57¼	57¾	xOkalta	255	260
Imp Tob	11¼	11¾	xO'Leary	28½	30
Do pr	6	6¼	xOmnitra	8¼	9
xInd Lake	33	34	xOB Sup	25	30
Ind Acc	25	26	Do pr	5	7
Do 4.50p	95	97	xO Jocke	225	230
Do 2.25p	..	48	Do pr	9½	9¾
Ingersoll A	7½	7¾	Do B pr	9½	9¾
Ipiglis	7¾	8	xDo w	56	60
Ing & B pr	11	11½	Ont Loan	28½	28¾
Inlnd C pr	18	19	Ont Steel	25	27
xInsprtn	116	120	Do pr	133½	..
Int Bronze	12	14½	Opemiska	14½	14½
Do pr	24	24	xOr Cr	290	320
I Met A	39½	40	xOrenada	35	36
Do pr	95½	102½	Ormsby	40	42
Int Mill pr	89	..	xOsisko	35	38
Int Nickel	100¾	100¾	xPac Coy	100	..
Do pr	121	125	xPac East	12½	14
Do $8 pr	6¼	..	Pac Pete	16¼	16½
Int Pete	34½	35¾	Page-Hers	93	97
Int Pow	270	280	xPamour	49½	50
xInt Rwk	48	50	xPan West	28	29
Int Util	49½	50	xParamaq	11½	13½
Intprv BC	13	13¼	xParbec	9	10
Do A w	200	360	xPardee	58	60
Do B w	100	125	Parker Dr	64	64
Intprv PL	43	43¾	xPater	73	75
xIrish C	236	246	xPaymas	26	28
xIron B	230	240	xPce Riv	875	910
xIsotope	145	150	Pembina	43¾	44
xJ Waite	19	21½	Do pr	48½	49
xJacobus	26½	28	Penmans	..	26
Jam Pub	..	24½	PC Jewel	21	24½
Jam P.S.	104½	110	Do pr	97½	99
xJ Expl	103	107	xPerron	25	30
xJeanette	47	49	xPeruv O	153	165
xJellicoe	38	39	xPer G p	220	222
xJoburke	13½	14	xPetrol	113	115
Johns-M	45	45¾	xPhillips	135	160
xJoliet	75	76	Phot Eng	41	42½
xJonsmith	20½	21	xPick Cr	126	130
Journ Ott	16½	..	xPioneer	132	155
xJowsey	87	88	xPitch-Ore	10	11
xJupiter	205	218	Placer	12½	13
Kelvinator	11	11½	xPonder	65	70
xKenville	10	10½	xPoplar O	25	38
Kerr Add	17½	17¾	Powell R	48½	49
xK Lake	32	..	xPow Rou	50	56
xKeybycon	8½	9	Pow Corp	60½	61½
xKeymet	47	65	xPrairi O	445	465
xKilembe	287	290	xPrem B	15	15½
xDo wts	135	140	Do Tr	88	94
xKirk H	30	32	xPres El	150	160
xKirk M	175	178	PRM Inc	33½	34
xKirk T	19	20	Do Debs	91½	93
xKroy O	195	196	PRM ws	480	500
Labatt	20½	20¾	xPreston	620	640
Labrador	19½	20¼	Price Bro	93½	93¾
xL Cinch	97	99	xPronto	455	465
xL Dufft	241	250	Do wts	174	179
xL Ling	13½	14	xPros Air	165	175
xL Osu	19½	24	xProvo G	210	213
xL Shore	380	390	Prov Tr	12½	13
xL Wasa	20	26	xPurdex	17	19
L Wds pr	..	140	xQue Chi	204	205
xLa Luz	375	390	xQue Cop	160	165
xLamque	265	285	xQue Lab	14	15
Laura Sec	18	19½	Que Lith	10	10½
Laurent A	10	10½	xQue Man	95	98
Do wts	..	100	xQ Metal	265	275
L & J A	20½	20¾	Que Pow	26½	26¾
Do B	21½	..	xQueensin	25	26
xLeitch	85	91	Quemont	23	23½
xLencourt	13	15	Quinte A	11	11½
Lewis Br	9	10	Do Com	5	..
xLexindin	15½	..	xRadiore	110	112
xLib Pete	226	230	xRainvill	150	160
xLL Lac	165	170	Rapid-Grip	8	8
Loblaw A	47	49	xRare E	185	187
Do B	..	73¾	xRayrock	153	160
Do A pr	28½	29	xReef Ex	13½	14½
Do n A	16½	17½	xReeves	180	195
Do n B	17	17½	Regent	19	20½
Do pr	40	40¾	xRenabie	225	235
Loews	124	..	xRexspar	46½	47
xLomega	16	16½	Reynds Alp	..	95
xLon Hos	115	175	xRio Pal	188	190
Do A	6¼	8	xRio Rup	17½	18
xLd Pete	14	16	R Silk A	..	9½
xLorado	113	115	xR Silk B	280	400
xLouvicrt	18	20	xRix Ath	60	63
L St Law	18	19	Robertson	12	14
Lowney	23	28	Do $1 pr	18	20½
xLndhrst	126	130	xRobin	325	475
xLynx	9	10	Do pr	..	300
xMacassa	195	200	R Little	9½	9¾
xMacdonld	65	75	Do A	13½	14
xMacfie

Mining Outlook High and Wide

The outlook is good for Canadian mining.

Industry spokesmen, addressing a provincial mines ministers' conference, forecast new output records, continued expansion, provided we remain competitive in world markets.

They made these points:

- Nickel production records will tumble this year, as world demand surges.
- Iron ore shipments will reach 21 million tons this year, may double by the 1960s.
- Recent nuclear power developments are lifting the fog surrounding uranium's post-1962 outlook.

Here are digests of major speeches.

Demand and Competition Set Stiff Pace for Nickel Industry

H. J. FRASER — Vice-President & General Manager, Falconbridge Nickel Mines Ltd., On behalf of Ontario Mining Assoc.

The Canadian nickel industry should establish new records in production, gross income and net earnings in 1956.

Production for the year will probably be 3% to 4% above 1955 or about 182,000 tons of nickel. This represents about 80% of the free world's supply. Associated copper production will represent about 45% of Canada's output.

Gross income will likely exceed $500 million for the first time, about a 100% increase in value since 1950. It exceeds total production value of all minerals in 1945.

Net income, after income taxes of $65 million, could top $100 million.

The industry is directly employing about 32,000 persons here and abroad. This year, expenditures on new plant and improvement will be $40-$45 million — with $7-$10 million on exploration and about the same amount on research and process development.

These impressive achievements should not distract our attention from the fact that Canada's pre-eminence as the world's chief nickel supplier is declining. From 1920 to 1940, Canada supplied about 80%-87% of world nickel. Today we supply only about 63%-65%.

Similarly, in the free world, where production statistics are more reliable, we find the same trend. In 1950 we supplied about 95% of the free world nickel but today we supply only 80%.

Why has Canada's position declined despite increasing output? What will our future position be? Can the trend be reversed?

There has been a shortage of nickel in the free world since 1950. Production has not kept pace with demand — a situation started by cold war rearmament, aggravated by the Korean War, the dynamic and continuing post-war consumer goods boom and, of late, by government stockpiling programs.

Rapid technological progress in almost every field during the past few years has meant an accelerated demand for alloys, alloy steels and, in particular for nickel, which is so essential to war materials and consumer durable goods.

While stockpiling has absorbed part of new production it has also been a factor in stimulating production increases through incentive contracts.

Increased consumption is of far greater importance than stockpiling as a cause of the current shortage. World steel production is growing at a rate of nine to 12 million tons yearly. With nickel consumption averaging about 2 lb. per ton of steel produced, this calls for increased nickel production of 18 to 24 million lb. a year.

Rising Demand

However, per capita consumption of alloy steel is rising over twice as fast as per capita consumption of steel. Demand for nickel in jet engines, aircraft frames, armaments, turbines, nuclear power, automated machine tools, electronics, household appliances and many other uses would speed up even more rapidly if ample supplies were available.

Forecast increases of consumption in the next 25 years range upward from 100%.

U. S. requirements alone are estimated to be more than 440 million lb. by 1961. A world consumption in 25 years of a billion lb. (500,000 short tons) could well be realized.

Such a rate of growth, averaging 21 million lb. a year, would require the added production of a new **Sherritt-Gordon** every year, or a new **Falconbridge** every 2½ years, or a new **Inco** every 14 years.

Canada's pre-eminence in the nickel field since 1905 has been based not on a near-monopoly of nickel ore but on reserves of sulphide ores from which nickel could be recovered more cheaply than from the much more abundant laterite ores.

The known and indicated reserves of laterite ores in New Caledonia, Cuba, Brazil, Venezuela, Dominican Republic, Africa, the Philippines and other areas of the East Indies, amount to many times the known reserves of sulphide ores in Canada.

In 1905 nickel could be produced more cheaply from sulphide ores of Canada than from the laterite ores of New Caledonia. In 50 years, our mining has become deeper each year, we have mined progressively lower-grade ores to produce sufficient nickel to satisfy demand, and costs of materials and labor have steadily increased.

Developments in materials and metallurgy since 1943 have made development of surface laterite ores economic.

It is fortunate that potential future consumption for nickel appears so large. Otherwise the impact on our industry might be much more severe.

It is evident that Canadian producers in the next few years will face greater competition in world markets.

Harder Outline Appears For Fog-Shrouded Uranium Mart

RICHARD E. BARRETT — Ore Procurement Manager, Eldorado Mining & Refining Ltd.

Although the future for uranium use is still not clear, the fog is beginning to lift. Some encouragement can be taken from events of the past year.

- Britain's first atomic power station, located at Calder Hall, is now on trial operation.
- Construction of a number of large atomic power plants is going ahead in Britain.
- The submarine Nautilus chalked up success for atomic power in marine propulsion.

In North America, because our present sources provide cheap power, it's not economic to design large atomic power plants until experience has been gained from demonstration units.

In Britain, because of the coal shortage and the precarious supply situation for oil, a more aggressive policy is warranted. Building of power plants there will materially hasten the accumulation of experience so necessary for the design of low cost atomic energy stations.

As for atomic power in ship propulsion, it is fairly obvious that the benefits of boundless cruising range at otherwise prohibitive speeds will make it necessary for all navies to be so equipped.

This necessity will doubtlessly hasten the perfection of the so-called packaged reactor which can have many peaceful uses. Even now some authorities in maritime matters are suggesting it a feasible unit for bulk freight carriers.

Production of uranium in the U. S. is of considerable volume and the industry has been expanding rapidly. The production comes from many small-to-medium-sized mines, the grade of ore is generally better than that of some of our mines and operating and capital costs are probably moderate for geographical and geological reasons.

However, majority of the mines have limited ore reserves and, unless prospecting and development are encouraged, the known reserves will be greatly reduced by 1962.

The U. S. Program

That is why the new American program was announced, whereby the U. S. Atomic Energy Commission will purchase domestic production from 1962 to 1966 at $8 a lb. of U_3O_8 contained in chemical precipitate. Purchases may be limited by the AEC from any one production unit.

In Canada, our situation is different since our productive capacity seems ample considering the market. Most of our mines have indicated ore reserves well in excess of present contract requirements (**Eldorado Mining & Refining** is the procurement agency in Canada, buying from mines under contract at premium prices until 1962).

Our problem is to assure these operations of a continuing market, rather than encourage new properties to come into existence at this time.

On May 25, Trade Minister Howe said in referring to the American program:

"The Canadian position differs in another respect, namely the anticipated requirement of uranium for domestic use. Even on the basis of the most optimistic forecast that can now be made as to the role of nuclear power in the Canadian economy, our resources of uranium will be greatly in excess of our domestic requirements for many years to come, and we shall need to obtain export markets."

Anticipated level of U. S. requirements both for military and civil purposes is vastly in excess of Canadian needs.

A great deal has taken place in the uranium industry in the past year. Contracts now let or pending for Canadian uranium production for delivery before March 31, 1962, total more than $1.4 billion. Two years from now these plants should be at full rated output. The annual value of their product is estimated to be about $300 million.

This would suggest that uranium may then head the list in value of Canadian mineral production. Three years ago there were only two mines producing uranium in Canada — one at Port Radium and the other at Beaverlodge. Such expansion is indeed phenomenal.

Canadian Iron Ore Expansion Large Now, Getting Larger

W. H. DURRELL — Executive Vice-President, Hollinger-Hanna Ltd.

Canada has many iron deposits whose ore requires beneficiation and can be upgraded to beyond 60% iron. Many no doubt will reach the production stage during the present shortage of steel.

The outlook for this type of deposit has improved in recent times.

Because of high costs in new blast furnace construction, the present trend is to use ores containing the highest possible iron content. It has been proved that by using a 60%-65% iron content, particularly in pelletized or agglomerated form, production from existing blast furnaces can be increased by as much as 20%.

Although these Canadian deposits may be developed to production, only those properties with an efficient operation and favorable geographic position would survive another world-wide recession.

The traditional advantages of Canada in resource development are its geographic location, its stable political climate, favorable and incentive legislation and both federal and provincial tax structures. It is absolutely essential to continued growth of our domestic iron ore industry that we retain these advantages.

This does not rule out the encouragement of our domestic iron and steel industry. Our iron ore resources are so great we have more than ample for both domestic and export requirements far into the foreseeable future.

But a large and continuing market in the U. S., and to some extent western Europe, is necessary for continued development of these resources.

There is no place for complacency in the matter of keeping our production competitive with other producing areas. There is no general shortage of iron ore in the world, only regional shortages. In the Americas, Asia, Africa and even western Europe, there are tremendous iron ore resources. Canada has many competitors, both present and potential.

Doubled Production

With regard to present production, iron ore shipments this year will probably be about 21 million long tons. With continued world economic conditions and favorable domestic legislative policies, shipments may well exceed 40 million long tons by the mid-1960s — a two-fold increase, or more, over this year's expected shipments.

Last year, shipments amounted to 14½ million long tons valued at $110 million, an increase of 121% over 1954. About 90%, or 13 million tons, were for export, chiefly to the U. S. but also to western Europe and Japan. Canadian imports came to more than four million tons.

Important as Canada is as a producer, the Canadian share of total world production in 1955 was only slightly over 4½%. We competed with Sweden, U. K. and West Germany for fourth place, after the U. S., Russia and France. This year, we will probably be the undisputed fourth largest producer.

The tremendous increase in Canadian production in 1955 was almost entirely due to the greatly increased shipments by **Iron Ore Co. of Canada** from its mines in New Quebec-Labrador. However, marketing conditions were generally excellent, so that even exclusive of the New Quebec-Labrador output, shipments were ahead of 1954.

There were about 5,000 persons directly employed in iron ore exploration, development and production in 1955. They drew annual wages and salaries of more than $20 million.

Annual expenditures on fuel, electricity, process supplies, freight and treatment charges were about $50 million. Capital and repair expenditures, exclusive of big power and transportation costs, have been running around $50 million annually for the past four years.

The Canadian iron ore industry is dynamic and rapidly expanding, has already taken a leading place in Canadian mineral production.

Emerging in 1939 from 15 years of extinction, it has grown tremendously to where it now has a profound and beneficial effect on the Canadian economy.

MARKET COMMENT

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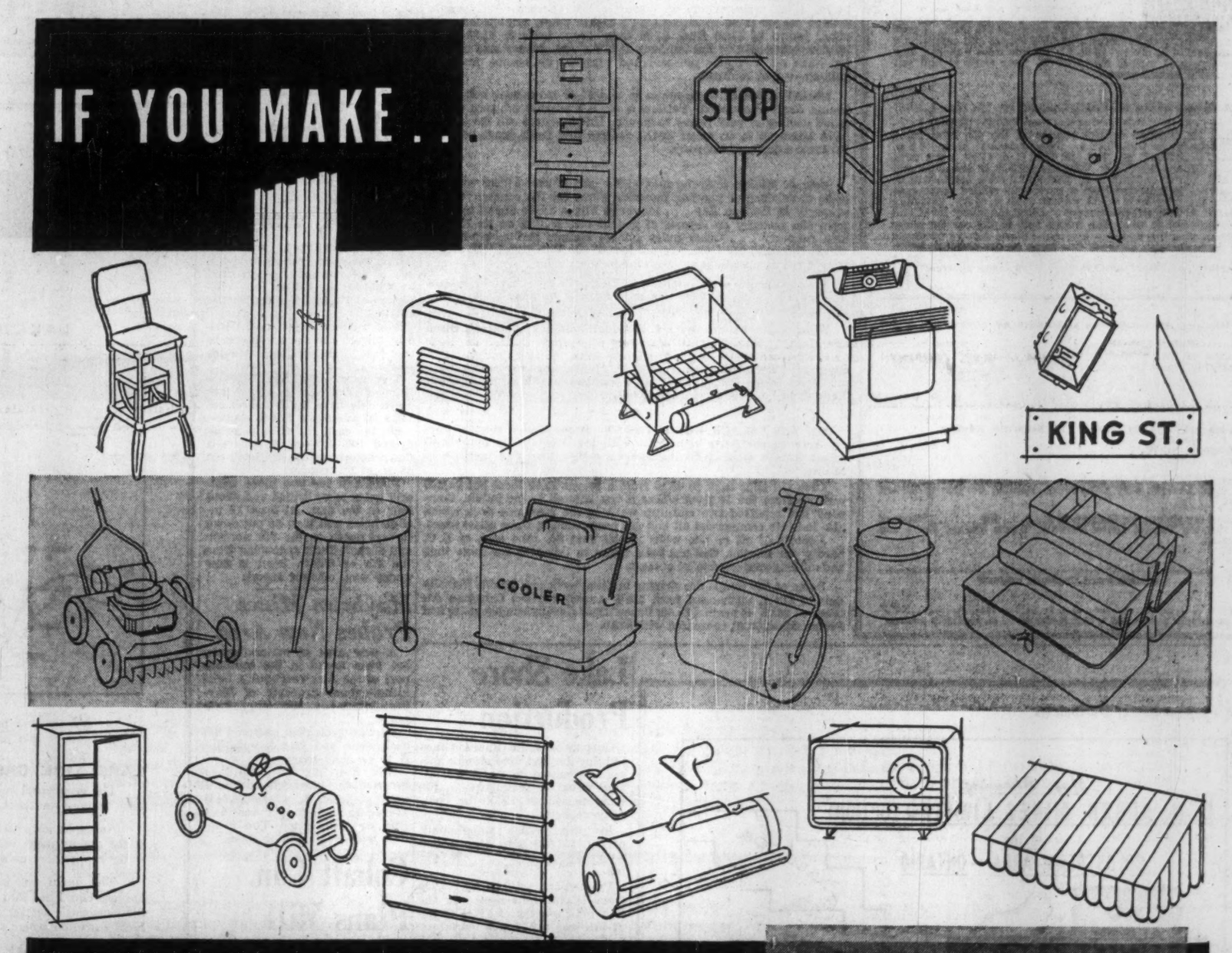
THE FINANCIAL POST
Yearly by mail in Canada, $6; elsewhere $7 yearly.

ANNOUNCEMENT

THE ELECTRIC STORAGE BATTERY COMPANY (CANADA) LIMITED APPOINTMENTS

J. E. EELLS — H. G. MILLS — D. C. BROWNELL

The Electric Storage Battery Company (Canada) Limited, recently formed by the merging of two of Canada's leading battery manufacturers — Exide Batteries of Canada Limited and the Willard Storage Battery Company of Canada Limited — announces the following appointments: Mr. J. E. Eells as Executive Vice-President, Mr. H. G. Mills as Vice-President, and Mr. D. C. Brownell as Vice-President and Treasurer.



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What did

R. RANDOLPH REYNOLDS, B.Com.

say in his
MASTER TREND CHART
about

COLDSTREAM

	Price	Chart Figure	Figure Legend
Letter No. 574 (Sept. 21)	$1.36	9	BUY
Letter No. 575 (Sept. 28)	1.65	9½	BUY MORE
Letter No. 576 (Oct. 5)	2.50	10½	HOLD
Letter No. 577 (Oct. 12)	3.30	12	SELL HALF

The current status of approximately 100 stocks is maintained weekly in CANADIAN MARKET LETTER via the MASTER TREND CHART, where by the use of various numbers you are able to determine the action which should be taken with respect to the 100 stocks listed. Complete detail of operations appears on the Master Chart page.

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What did . . .

"Stock Market News & Comment"

say about

COLDSTREAM COPPER!

EXTRACT FROM MARKET LETTER No. 780 (Sept. 30, 1956)

"COLDSTREAM (down to $1.37) should be drilling laterally and to depth from the 4th level drive shortly. Production is scheduled to start here in May 1957. Hold and Buy!"

EXTRACT FROM MARKET LETTER No. 781 (Sept. 27, 1956)

"COLDSTREAM, given to you last week at $1.37, has advanced to $1.75 on drilling news from the 4th level. A core length of 85.0 ft. averages over 7.0% copper and assays on a further 55.0 ft. are yet to come. Results from a second hole are expected almost immediately. **This stock should sell over $2.00 on this move.**"

EXTRACT FROM MARKET LETTER No. 782 (Oct. 4, 1956)

"The feature of this Market has been COLDSTREAM COPPER, its diamond drilling results on the 4th level being reminiscent of OPEMISKA. Two horizontal holes, 50.0 ft. apart gave 85.0 ft. of 7.22% and 109.0 ft. of 4.25% and a third hole still another 50.0 ft. west has 105.0 ft. of ore averaging 3.64% copper, and still in it. That still further length will be obtained is indicated from a previously drilled down hole from the third level which yielded 200.0 ft. of 2%, including 65.0 ft. of 5.6% which occurred at about the fourth level, still another 50.0 ft. west. The fourth hole in the current series should pick this up in the horizontal plane. Having predicted a move through $2.00 for this stock in the previous letter, sights must be raised in the light of above results and a **further immediate move through $3.00 seems assured.**"

High following recommendation of COLDSTREAM COPPER .. $3.50!

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Taking Stock

What's going on in the mining and oil markets — the facts and rumors.

A copper price cut this week sparked a sharp reaction among sensitive copper stocks. When two leading U. S. custom smelters reduced their price by 2c a lb., the news sent several speculative copper issues tumbling from new and recent highs.

In contrast, senior copper issues mostly dipped mildly or held firm as big producers held their price line in commodity markets.

Brokers attributed the relative stability in senior issues to two main factors: (1) News of the copper price easing had been forecast to some extent by recent buildup of pressure on price; (2) Investors apparently reason that long-term outlook for the red metal is still good.

Here's recent market action of some copper stocks:

	Latest Price	Week's High	Oct. 5	1956 High	1956 Low
	$	$	$	$	$
Bouzan	1.62	1.88	1.80	3.85	1.45
Campbell Chib.	16⅜	17⅛	17⅛	28¾	15⅝
Coldstream	3.00	3.50	2.90	3.50	.95
Cons. Halliwell	2.05	2.35	2.05	3.75	.44
Falconbridge	37¾	39½	39	44	29
Intl. Nickel	101	103¾	100⅜	110	78¼
Irish Copper	2.36	2.66	2.35	3.85	2.10
Noranda	58	59⅜	58¼	66⅝	51½
Opemiska	14½	15¼	14½	19½	8.20
Temagami	5.30	6.00	5.20	9.00	2.25

* * *

THE BUZZ IN BOARD ROOMS—The recent resurgence of interest in mining issues results in some new financing as mine financiers take advantage of public enthusiasm. This is the traditional pattern. When markets are active, underwriting announcements appear.

Recent financing deals include **Mogul Mining** which drops back to $2.90 from $3.10 on news that 850,000 shares were underwritten at $2.85 a share. Company also plans increase in authorized capital to 15 million shares from 5 million shares. This is one of the H. W. Knight Jr.-directed companies which climbed from about $2.70 as a result of interest in **Coldstream Copper.** It acts as a holding company.

* * *

Also sparked by financing news is **Greyhawk Uranium** which recently obtained a contract to sell uranium to the Government. Greyhawk turns over heavy volume of shares after 400,000 shares taken down at 35c and a further 600,000 shares optioned at prices ranging from 40c to 75c. Stock hit a top of 46c before settling back to 37c. Recent price was 43c.

Abbican bumps ahead to a top of 86c from 73c, later settling back to 76c as an underwriting announced at 75c. Company acquires a former copper mine in Arizona . . . **Pickle Crow,** established gold mine, jumps to $1.40 from $1.30 then drops back to $1.26 after 200,000 shares sold by the company at $1 a share. Money said needed for work on a copper prospect and supplied by mining industry veteran - - J. E. Hammell.

Market action of these issues is typical of movement when financing deals announced. Pattern is for a moderate advance and a quick decline in very heavy turnover. Underwriters sell stock they have taken up to an eager public feeling that fresh funds will rejuvenate a dormant company.

* * *

Belcher Mining, a strong spot with a gain of 35c at $2.85 with reports circulating of pending financing plans for the company's iron property in Hudson Bay . . . **Maybrun Mines** edges ahead to $1.10 from 82c recently on reports of a drill intersection on its Kenora area property . . . Other quiet gainers include **DeCoursey-Brewis** which climbs to 57c from a recent low of 40c with street talk of improvement in operations at its Alaska mercury mine.

Two companies with interests in Eire perk up. Original entrant into the Emerald Isle, **Irish Copper,** hits $2.50, up from $2.35, before slipping back to $2.36. **Can-Erin** at 90c rises from 86c.

News of purchase of the J. E. Hammell holdings in **Starratt Olsen** and **Hasaga** helps **Wright-Hargreaves** edge up to $1.62 from $1.60. Starratt Olsen at 15c is ahead slightly from 10c and Hasaga at 16c compares with a recent price of 15c . . . Lower earnings (21c a share vs. 24½c) in the first half of the current year result in dip in **Giant Yellowknife** to $5.05 from $5.40 recently.

* * *

ON THE "BLACK GOLD" FRONT—prices tended slightly lower. Activity continues very light with the over-all dip tending to result from a lack of buying interest rather than any increase in selling.

Cree Oil slips back to $5.10 from a recent $5.60 level but is still well up from the $4 level where it was offered to the public. Company has reported two cardium wells in the Keystone area which also indicate commercial oil and gas production in three other zones.

Reports of oil in two wells in the Fort St. John area of B. C. hardly stir market. Gas has been found in this area for some time and oil long suspected to be present.

Some of the companies sharing in these wells are: **Pacific Petroleums** at $16⅛, unchanged from $16⅛ a week earlier; **Canadian Atlantic** at $6.65, as against $6.60; **Peace River Gas** unchanged at $9; and **Permo Oil** at $2.20, compared with $2.10.

Crazy, Mixed-Up Copper, Two Cuts As Demand Sags

Business eyes on both sides of the Atlantic are closely following the "mixed-up" copper price picture. Big questions:

How long can the price differential exist between South African and Canadian-U. S. producers? Between custom smelters and prime producers?

This week major U. S. custom smelters cut copper prices by 2c lb. to the 37c a lb. level. This was accompanied by corresponding cuts in copper scrap. But prime producers continued to cling to their 40c a lb. price (39c in this country).

At the same time, the **Rhodesian Selection Trust** group cut 2½c a lb. from its price to British consumers, bringing it to 35c — closer to the current quotation of 35c-35¼c on the London Metal Exchange.

Custom smelters claim the fall upturn in business has so far failed to materialize in U. S. and particularly disappointing to date has been lack of orders from the big auto producers. September has been the second lowest sales month this year, they claim.

While close-mouthed about their future pricing policy major Canadian prime copper producers claim they have no plans at the moment to change prices. They say it's too early yet to gauge the potential of the all-important auto manufacturers' market. U. S. auto makers have entered the 1957 production period with more than average inventories of copper parts (radiators chiefly). It might take a few more weeks for new orders to build up for 1957 auto production.

In Canada, copper and brass fabricators admit fall business is down somewhat. Part of this stems from increased U. K. imports. Because the U. K. fabricator can purchase his copper for 5c a lb. less, has lower labor costs, he is able to invade the Canadian market at the present time.

"Price stabilization cannot come too soon for us," sales manager of one of Canada's largest copper and brass plants told The Post.

Actually copper from the custom smelters is usually 2c to 3c a lb. under virgin copper since it is made almost entirely from copper scrap and has not the same high purity rating.

Metal industry observers say there's widespread belief the prime producers' price may level off at 38c or possibly 36c — to bring the North American price structure more in line with the world supply-demand picture.

One of the key factors in the North American producers' price remains the determination of big U. S. producers to bring stability to the price structure. Early this year, they reluctantly boosted the price to 46c after London prices had soared to 54c. Then, in July, they marked down the price to 40c, some weeks after world prices had pretty well collapsed.

In the U. K., uneasiness exists because of the impending release of 36,000 long tons of copper by the Government.

Pointing up the quieter market was the lack of upward pressure during the recent labor strikes in Rhodesia and the Suez Canal crisis. The London Metal Exchange quotation has fluctuated only in a narrow range, 35c to 40c, in the last three months.

Contrasted to this, loss of African production through strikes in 1955, sent copper prices spiraling upward as a short-supply situation appeared.

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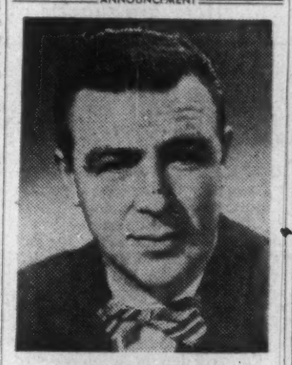

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The Canadian Credit Men's Trust Association is pleased to announce the appointment of Mr. P. J. Houghton as Ontario Manager. Mr. Houghton was formerly Manager of the Vancouver office.
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Coldstream Outlines 350 Ft. Zone

A 350-ft. ore zone averaging 106 ft. wide and grading an average of 3.47% copper is reported by **Coldstream Copper** on completion of seven flat holes on the 4th level.

Two further holes, one westerly toward the shaft and one to the east, were drilling at midweek.

The west hole, No. 4010, is being drilled where a previous down hole from the 3rd level cut 145.9 ft. averaging 3.56% copper.

On the east, No. 4011, is being drilled 150 ft. west of where a down hole from the 3rd level cut 65 ft. of 5% copper.

Plans call for two more westerly holes to be drilled and about four to the east. At least 17 incline holes will then be put down to test depth to the 5th horizon and deeper. Shaft deepening from the 4th or 625-ft. level is now under way, officials report.

Maybrun Mines Probes New Area

A new area of mineralization has been found in the southern part of the Atikwa-Populus Lake nickel-copper property of **Maybrun Mines Ltd.,** the company reports.

Surface geological mapping has been done and diamond drilling is to be done shortly.

New deep ore has also been reported by Maybrun on the B zone at 1,000 ft. where 64.4 ft. averaging .32% copper and .34% gold was intersected. This is the best width obtained to date.

Lake Shore Production

Output of **Lake Shore Mines Ltd.** for the first nine months this year amounted to $2,133,298, almost equal to production in the same period of 1955, the company reports.

In this year's nine-month period, 152,880 tons were milled with ore averaging $13.95 per ton.

Production totaled $2,155,320 from 177,101 tons milled in the first nine months of 1955. Grade of ore was $12.17 per ton.

Output amounted to $490,492 from 39,412 tons of ore averaging $12.45 a ton in the third quarter this year, down from $657,235 from 52,331 tons of ore averaging $12.56 per ton in the same period last year.

Third quarter decline this year was due largely to mill shutdown in the July holiday and repair period, company says.

East Sullivan Operating Profit Down in 9 Mos.

Operating profit of **East Sullivan Mines** for the first nine months of this year amounted to $2,776,960 before taxes and depreciation, the company announces.

This compares with an operating profit of $3,051,761 for the same period last year.

Profit this year is almost on the same basis as the same period of 1955 if non-recurring expenditures, due to a shaft sinking in 1956, are taken into consideration, the company says. This expenditure amounted to $270,000.

SIGMA MINES (QUEBEC) LTD. reports gross production of $212,250 from 33,750 tons milled for September this year. This compares with production of $221,633 for August, 1956, and $212,050 for September, 1955.

Cobalt Con. Plans Mill After Fire

Plans are advanced to replace the ore-treating plant and carry on operations at **Cobalt Consolidated Mining Corp.** following a fire which destroyed the 104 mill at Cobalt, company officials say.

The company will decide shortly to replace the facilities with either the **Penn Cobalt** or **Cobalt Lake** mill. Both buildings have equipment that was left installed when milling from all company operations was concentrated at the 104 plant.

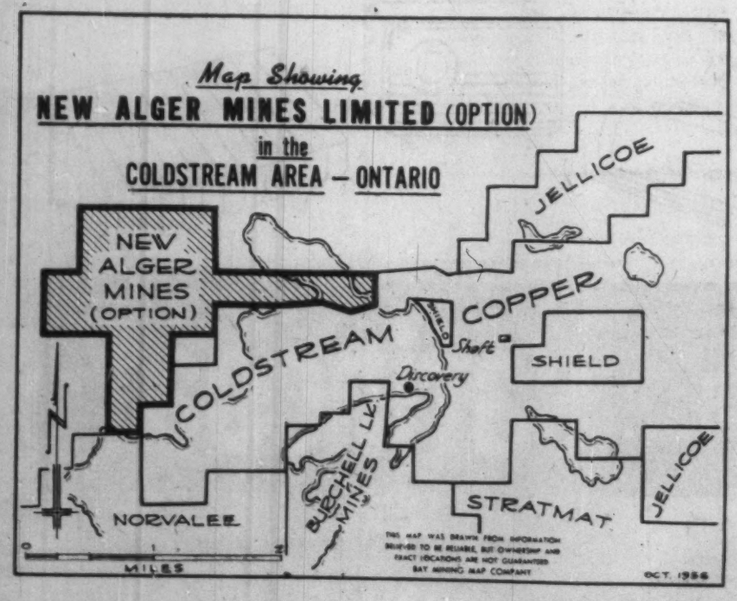
Meanwhile, the company is negotiating to lease one of two local mills so that operations can be carried on. Cobalt and silver ores will be stockpiled until production resumes, and high grade silver ore will be mined for shipping direct to the smelter.

A recent shipment of 21 tons of bagged high grade from the rehabilitated Christopher and Foster mines averaged from 5,023 to 7,533 oz. of silver per ton, company officials report.

High grade is now being cobbed and bagged from a new zone in the Christopher mine where three raises along 600 ft. have all encountered ore. Sub-drifting from these raises has established continuation of the ore for lateral length of 90 ft. and a test raise in one section has continued in good ore vertically for 30 ft., officials say.

For Information of Shareholders

Map Showing
NEW ALGER MINES LIMITED (OPTION)
in the
COLDSTREAM AREA — ONTARIO



Above is a map showing New Alger Mines recently acquired properties in the Coldstream area where Coldstream Copper Mines Limited have recently been encountering sensational copper values in underground drilling. Lines are now being cut on the property preparatory to doing a complete geophysical survey under the direction of the company's Geologist, Mr. L. G. Phelan, M.A.Sc., P. Eng.

New Alger Mines Limited

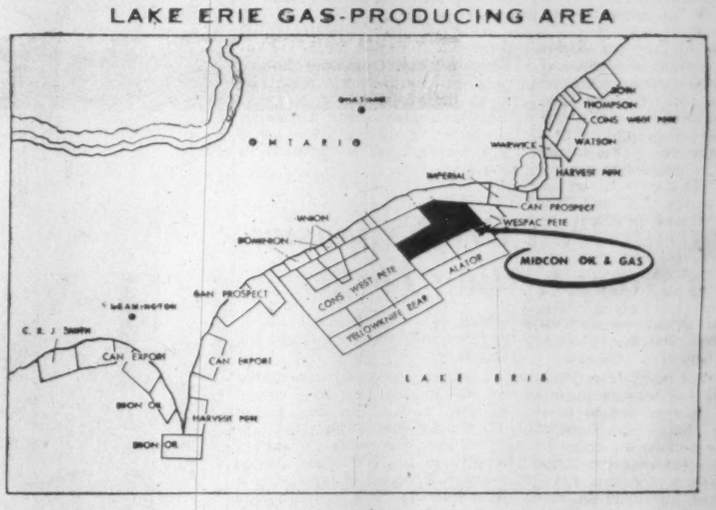
Room 1002, 80 Richmond Street West, Toronto 1, Ontario

To The Shareholders of:

MIDCON

Oil and Gas COMPANY LIMITED

LAKE ERIE GAS-PRODUCING AREA



Herein is a progress summary of the more important exploration and expansion developments previously announced

LAKE ERIE GAS FIELD—ONTARIO

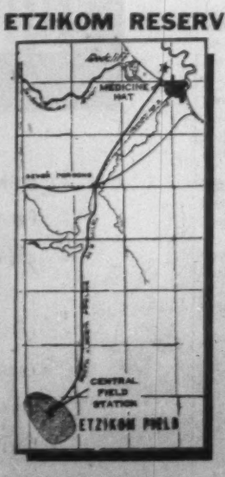
The geophysical survey of Midcon's 14,000 acres has been completed with results of much interest to the Company's Geologists.

An exploratory well is now being drilled on an indicated structural "high" as outlined in the gravity meter survey. This well, a structural test to determine the geological tops to tie in with the survey, is a first step in a drilling program under study.

This initial well is expected to confirm the under-water extension of the important Declute Gas Field into the eastern portion of Midcon's holdings. The western portion of the Company's acreage adjoins Consolidated West Petroleum Limited in the Tilbury Gas Field extension where some 30 successful wells have been drilled to date.

The first portable steel drilling tower, completely equipped to include power and lighting equipment and living quarters, makes drilling operations possible in any part of Lake Erie under exploration, regardless of water depth. The tower was moved "on location" for this exploratory well on the 1st of October and drilling commenced on October 11th.

ETZIKOM RESERVES—ALBERTA



Midcon's subsidiary — South Alberta Pipelines Limited — completed the pipe line from the Company's jointly owned gas reserves in the Etzikom Gas Field to Medicine Hat September 1st, 1956. The line has been given final test and is now ready to serve Northwest Nitro-Chemical Limited and the City of Medicine Hat, which have 15 and 20-year contracts with South Alberta Pipelines Limited, in which Midcon has a 50% interest.

Northwest Nitro-Chemical Limited is already taking some gas from this line, having started the first chemical plant unit this month. Full production will follow shortly, when delivery is expected to reach a minimum of 2,300,000,000 cu. feet of gas per year.

The City of Medicine Hat should start taking delivery of gas from this pipe line, under its contract, next month, or when the winter heat load starts to build up. The City has purchased 36,000,000,000 cu. feet of the Etzikom Reserves to be delivered over the next fifteen years.

MIDCON OIL & GAS COMPANY LIMITED

Executive Offices 170 Bay Street, Toronto, Ontario

Stelco Deals for More Iron Reserves in Nfld.

In a continuing program to line up sizeable iron ore reserves for the future, **Steel Co. of Canada,** Hamilton, and **Pickands Mather & Co.,** Cleveland, have now moved into the high-potential Labrador area.

A lease agreement for a large known iron ore body in West Central Labrador, guaranteed to yield at least 200 million tons of concentrates by open pit mining, has been obtained by Pickands Mather & Co. on behalf of itself and Steel Co.

The lease was granted by **Canadian Javelin Ltd.,** Montreal, and covers part of the five sq. mile Wabush Lake property which Javelin has under lease from the Newfoundland Government. It's approximately 200 miles north of Seven Islands, Que.

In addition Pickands Mather & Co. has agreed to purchase, during the period 1959-1964, up to two million tons per year of iron ore pellets which Javelin is to produce itself from a proposed concentrating plant.

The ore is a low-grade, coarse-grained material which present tests indicate can be concentrated to high-grade iron ore. There has been no development date set on the property lease by Pickands Mather and Stelco.

Canadian Javelin is now negotiating for the mining plant for its own operations.

The plant will have a capacity of some six million tons of concentrates a year and will cost about $7 million. It's expected the first unit will come into production by next winter.

Company is now building the 37-mile spur railway which will connect the Wabush Lake deposit to be worked by Javelin with the main line of the **Quebec North Shore and Labrador Railway.** Plans are to complete the line by next summer and have some shipments made to Seven Islands by late fall of next year. A loading depot with a capacity of 4,000 tons per hour will be built at Seven Islands.

The sales of concentrates to Pickands Mather is said to round out the market for Javelin's initial plant capacity of six million tons a year. Previous ore sales have been made in the U. K. and Germany for balance of capacity.

Other Aspects

Under other phases of the agreement with Pickands Mather and Stelco:

—Pickands Mather and Stelco will have first refusal of certain parts of the Wabush Lake area in the event that Javelin should decide to dispose of, or sub-lease, all or any part of this area.

—Pickands Mather and Stelco will have the right to select and take under lease certain additional lands in the 4,700-sq.-mile area which Javelin has under concession and the right of first refusal of iron ore rights in the balance of the concession area.

Pickands Mather will act as sales agent in the U. S. and Canada for iron ore produced by Javelin.

—Pickands Mather will be available for consultation to Javelin on mining and concentrating processes in its Wabush Lake holdings and to work with Javelin to co-ordinate the development of respective interests in the Labrador area. However Pickands Mather will have no responsibility for the construction or operation of the Javelin development at Wabush Lake.

The lease agreement with Javelin should add a large tonnage of desirable iron ore to the reserves for the future already held by Stelco, H. G. Hilton, president of Steel Co. of Canada, states:

"This is a fine opportunity to extend our iron ore mining activities in Canada," John Sherwin, senior managing partner of Pickands Mather states. "The co-operation we have received in the development of the Hilton Mine in Quebec has been most encouraging."

"We have not yet made detailed studies of the property which must precede actual mining activity and so we are not able to set a date for the beginning of development operations," Mr. Sherwin says.

Smallwood Comment

Commenting on agreements, Premier Joseph Smallwood, Newfoundland stated:

"While it may be too early to make a complete appraisal of the dollar value of these Pickands-Stelco-Javelin agreements, preliminary arithmetic on the documents which we have seen places a minimum return value of some $160 million on the ore purchase and a minimum of $200 million in royalties to Javelin as mining and development proceeds in the newly leased areas."

Terms of the Pickands Mather-Stelco lease are believed to be: 8% of the sales price of ore f.o.b. Seven Islands to go to Canadian Javelin or a minimum of $1 per ton of ore in the ground. There are penalty clauses which come into effect if Pickands Mather does not proceed with development of the leased property.

Mr. Smallwood added: "I am told that new and major steel interests are soon to enter the Labrador picture. Negotiations are already well under way with these interests to increase the Canadian Javelin iron ore plant capacity in certain areas in the vicinity of Lake Wabush which are not included in the agreements with the Pickands Mather and Steel Co. of Canada and in which large deposits of iron ore are known to exist."

AUMAQUE GOLD MINES LTD. will be asked at a special meeting Oct. 31 to approve an increase in authorized capital from 7.5 million to 10 million shares, President A. W. Johnston says in the annual report for the year ended April 30, 1956.

Balance sheet at April 30, 1956, shows current assets of $164,627, of which $161,896 is cash. Current liabilities amount to $7,472. Development and administration expenses are carried at $805,370.

Mine Financiers Join Forces In Shebandowan Copper Area

The two giant mine-financing groups which joined forces in the development of **Eastern Mining & Smelting** nickel-copper plant (FP, June 20) are again linked—this time in the Shebandowan copper camp.

The **Yellowknife Bear-Alator Corp.** (Streit - Hackett) team which has been instrumental in building up the Chibougamau Copper camp in Quebec has stepped into the Shebandowan area, 60 miles west of Fort William.

Their participation is through **New Alger Mines** which this week optioned 28 claims tying on to the west of the **Coldstream Copper** property.

And Coldstream, the spark behind interest in Shebandowan, is financed by the Knight interests — other half of the team in Eastern Mining.

In addition the Streit-Hackett group is eyeing other properties in Shebandowan which might need its financing services.

Copper Island Drills Elk Lake

Three additional diamond drill holes have been put down under the No. 2 showing at the Elk Lake property of **Copper Island Mining Co.,** the company reports.

First hole, drilled at 45 degrees cut the diabase dyke at 26 ft. and continued in it for 18 ft. The dyke acts as host rock to chalcopyrite and pyrite mineralization, officials report.

The second hole cut the dyke at 32.4 ft. where dyke is about 14 ft. wide. Hole No. 3 cut the dyke at 30 ft. and continued in dyke material for 17.5 ft. Samples were taken.

Inco Project Stirs Man. Survey

From Our Own Correspondent

WINNIPEG — The Manitoba Government is laying the groundwork for what it hopes will be spectacular development in the northern part of the province tied to the $150 million **International Nickel** project at Moak Lake.

Some 200,000 sq. [illegible] cambrian shield will be examined by **Arthur D. Little Inc.,** a U. S. firm of economic consultants. Manitoba will spend $70,000 on the economic survey of the north.

It decided to go ahead with the study in anticipation of announcement by International Nickel of development of its nickel deposits in the Mystery Lake-Moak Lake area, 400 miles north of Winnipeg.

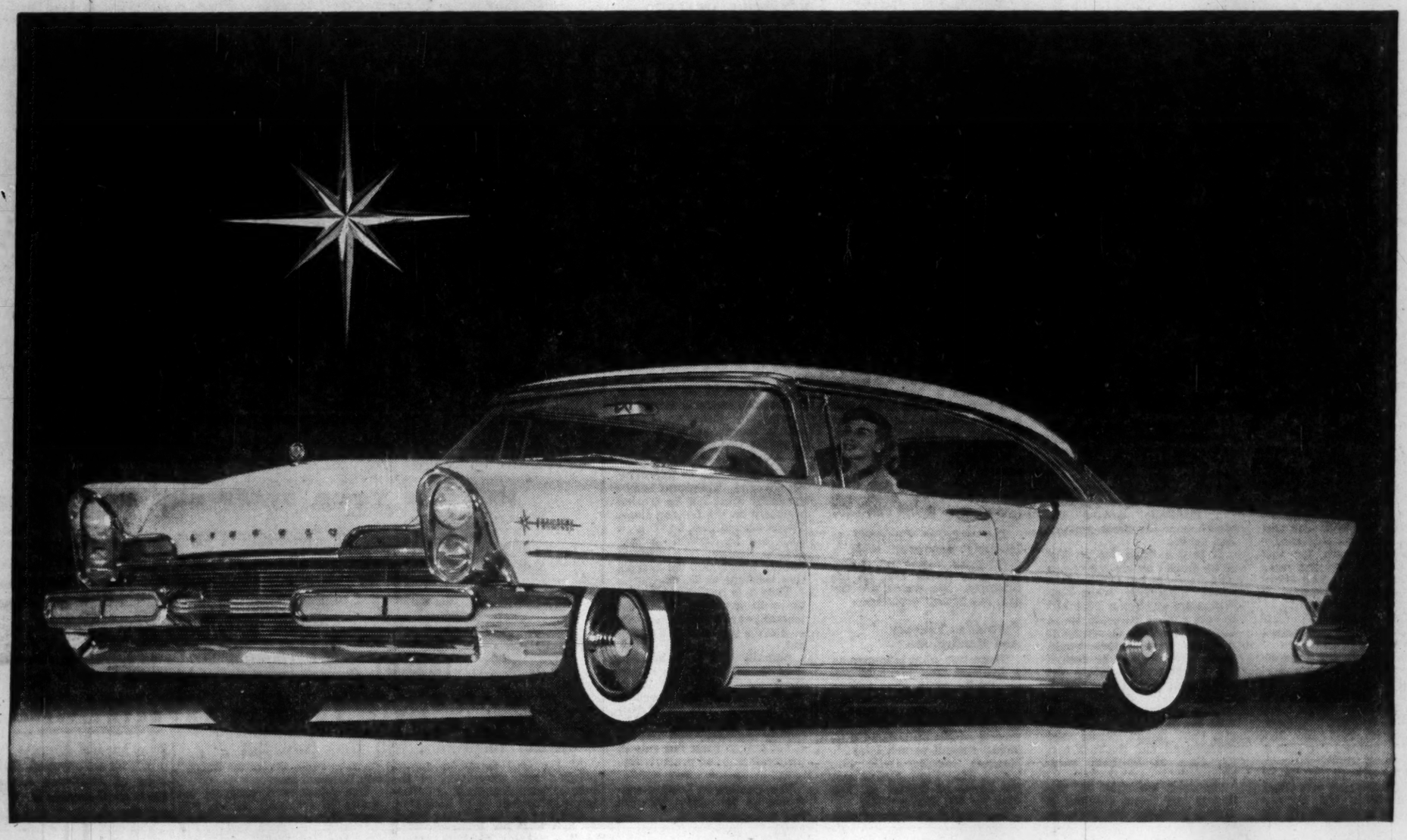
The Inco project has also stirred the vision of a giant pulp and paper project in this previously-untapped area of Manitoba.

Discussions are under way and the suggestion is that a paper company may be supplied with power from the Grand Rapid site on the Nelson River, which will have to be developed if International Nickel proceeds at Moak Lake.

The parties interested in the pulp and paper project represent British, U. S. and Canadian interests. The power site at Grand Rapid is about 40 to 45 miles northeast of Moak Lake and if fully developed could produce an estimated 200,000 hp.

INTERPROVINCIAL PIPE LINE CO. on Oct. 9 issued an additional 700 shares under company's incentive stock option plan. Now 5,050,143 shares outstanding.

DOMINION MAGNESIUM LTD. has issued an additional 20 shares under employees' incentive stock option plan. Now 472,240 shares outstanding.



In so many dramatic ways—unmistakably—the finest in the fine car field

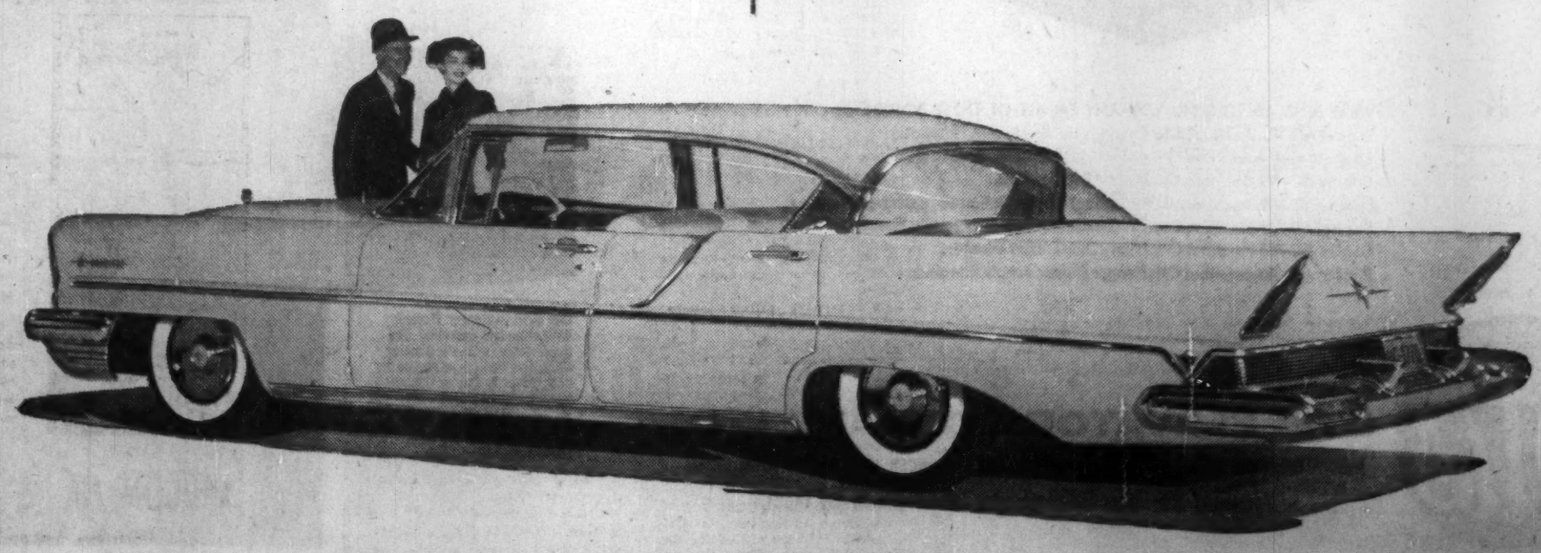
LINCOLN FOR 1957

DRAMATIC NEW FUTURA DESIGN
From bold new Quadra-Lite Grille to Futura-inspired canted rear blades, this is the most distinctive Lincoln of all time. Interiors too, abound in new ideas and quiet splendour accented by a wide choice of subtle colour combinations.

DRAMATIC NEW FUTURA POWER
Here is 300 horsepower, hushed and ready to fly in the most powerful Lincoln ever built. Here is power translated into sheer driving pleasure through a smooth, new improved kind of Turbo-Drive transmission.

DRAMATIC NEW POWER ASSISTS
Everything you touch turns to pampering power! Single-control electric door locks, 6-way power front seats, power lubrication are just a few of the automatic luxuries offered in Lincoln—the most completely powered fine car.

DRAMATIC NEW RIDING COMFORT
Lincoln for 1957 presents a new kind of Hydro-Cushioned ride that melts away bumps and hushes road noises to a mere murmur. Silent, swift and sveldt—the Hydro-Cushioned ride of the Lincoln is superb.



DON'T MISS IT! LINCOLN FOR 1957—AT YOUR NEARBY LINCOLN SHOWROOM *UNMISTAKABLY*—THE FINEST IN THE FINE CAR FIELD

Letter from London by Adelphi

Last week this column from London dwelt at some length with the Blackpool Conference of the British Socialist Party. Now we must take a look at the Conservative Conference which has just ended at Llandudno.

For days on end the newspapers were predicting there would be rebellious scenes at Llandudno. In fact Prime Minister Eden was obviously going to find that he had lost the confidence of his party.

With a reckless mixing of the classics, Macmillan was cast for the role of Brutus with Butler as Iago. Commendably, none of the political columnists referred to the garden of Eden.

But even the political columnists ought to have known that the Tories do not really brawl in the open. It is only their clean linen that they wash in public.

The fact is that Sir Anthony Eden's critics are not at all sure they are on a good thing. For a while they had their own way. Eden was mad to call up the Reservists — that was charge number one. Eden had no intention of using force — that was charge number two.

But when the anti-Edenites are asked: "What would you have done, chum?" Sir Anthony's critics are not so happy.

* * *

Long, Loud Cheers For Sir Anthony

Therefore when the Prime Minister shook off his chill and advanced upon Llandudno he was received with loud and sustained cheers. Admittedly some of the credit for this should be given to the mass circulation tabloid, The Daily Mirror, which has become so hostile to the Government and especially the Prime Minister that it is rallying the waverers to Eden's side.

You in Canada are not subjected as we are to the concentrated onslaught of national newspapers which reach the nation's breakfast tables from Land's End to John o' Groats.

Newspapers like The Express, The Mail and The Mirror have printing establishments, as well as editorial staffs, in London, Manchester and Glasgow. Sometimes other provincial cities are included but the big spots are as I have outlined.

Thus any one of these national coverage newspapers can make its impact upon virtually the whole country at breakfast time. As a result of this, the independent morning newspaper has dwindled both in numbers and influence.

The question that must be answered is this: "At what point does the freedom of the press challenge the right of Parliament to govern the nation?" I would not like to have to give the answer.

* * *

Are the Newspapers Going too Far?

By tradition, there are four estates of the realm in Britain: "The Crown, Parliament, the Courts of Law and the Press." Some of these days it may well be that the Trade Unions will emerge as the fifth estate.

The different estates have a perfect right to criticize each other but it becomes a disturbing problem if one of the estates decides to perform functions beyond its authority and place. The nation will not take government by the Press.

In short the Daily Mirror-Sunday Pictorial Group, by its vendetta against Eden, assured his triumph at the Llandudno Party Conference.

* * *

On the domestic front the Tories also won the gratitude of the large majority of the British people by declaring that they would introduce a Government Bill to maintain the hanging of murderers, while taking into account the desire to limit the use of the gallows as much as possible.

Understandably this will prove at once a relief and a disappointment to the fifty-odd Tory MPs who, by voting with the Socialists, carried the abolition of the death penalty last spring.

It is one thing for an MP to be guided by his conscience on a free vote, but it is another affair altogether when the Whips are on. For a Tory MP to vote against the compromise bill which the Government promises to introduce would mean officially that he desires the defeat and therefore the resignation of the Government.

Undoubtedly British public opinion is not ready to do away with the death penalty. It was also not ready when the thumbscrew and the rack and the fires at Spitfield were abolished.

However, we shall let the matter end there. Adelphi is merely a weekly commentator who has no views or conscience of his own.

* * *

Macmillan Pushes Customs Union

However, the much talked of Western European Customs Union will take our minds off the gallows. So far no one seems to know exactly how it is to be brought about or how Britain can maintain Imperial Preference while being a member of the European Union.

So far it would seem that opinion in the Dominions and Colonies is moderately favorable to the plan.

Harold Macmillan is obviously determined to lead Britain into the embrace of Europe if he can secure public support.

On balance it would seem that the Trade Unions will keep an open mind and that the Socialist Party will be unlikely to beat the Imperial drum and accuse the Government of forsaking Britain's overseas heritage.

* * *

Now let us look in at the courts. Mr. Randolph Churchill, only son of a great father, was awarded £5,000 damages for libel. This amount, you will agree, was considerably more than he won at the $64,000 question contest. The defendants were the weekly newspaper The People and they threw in their hands when defense counsel made no winding up speech.

Randolph was given a pretty tough time in cross-examination but he hit back and scored a lot of points. The libel was that he was a journalistic hack whose political views could be purchased for money. In other words he would support a cause according to the wish or whim of the newspaper proprietor — in this case Lord Beaverbrook.

The younger Churchill is intensely unpopular with a great many people but it was wrong to attack him on his integrity. His words are for sale but not his conscience.

* * *

Forbidden Themes And Marilyn, too

There was what is known as a brilliant first night in the theatre this week when Arthur Miller's play "A view from the Bridge" was given its London premiere. The arrival at the theatre of Mr. Miller's wife (a young woman named Miss M. Monroe) together with Mr. Miller, Miss Vivien Leigh and Sir Laurence Olivier set the tone for the whole affair.

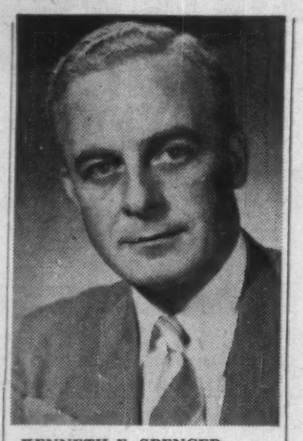
The English are not unaware of the usefulness of hypocrisy on occasion. Therefore homosexuality must not be treated seriously on the London stage. To get around that, however, a club can be formed to take over a theatre. The price of joining such a club varies from five shillings to 7s. 6d.

Thus it is perfectly all right for club members to expose themselves to forbidden themes — but the public must be kept out.

Actually this is a brilliant play which could be shown anywhere. But it is a lot to expect the Lord Chamberlain, who licenses plays, would realize that there is a cleansing quality to tragedy and that sex is not evil in itself but only in the treatment and presentation.

* * *

The weather in London continues to be sultry, sluggish and well-intentioned.



KENNETH E. SPENCER

of Spencer & McMullen Ltd., Toronto, has been elected president, Canadian Photographic Trade Association.

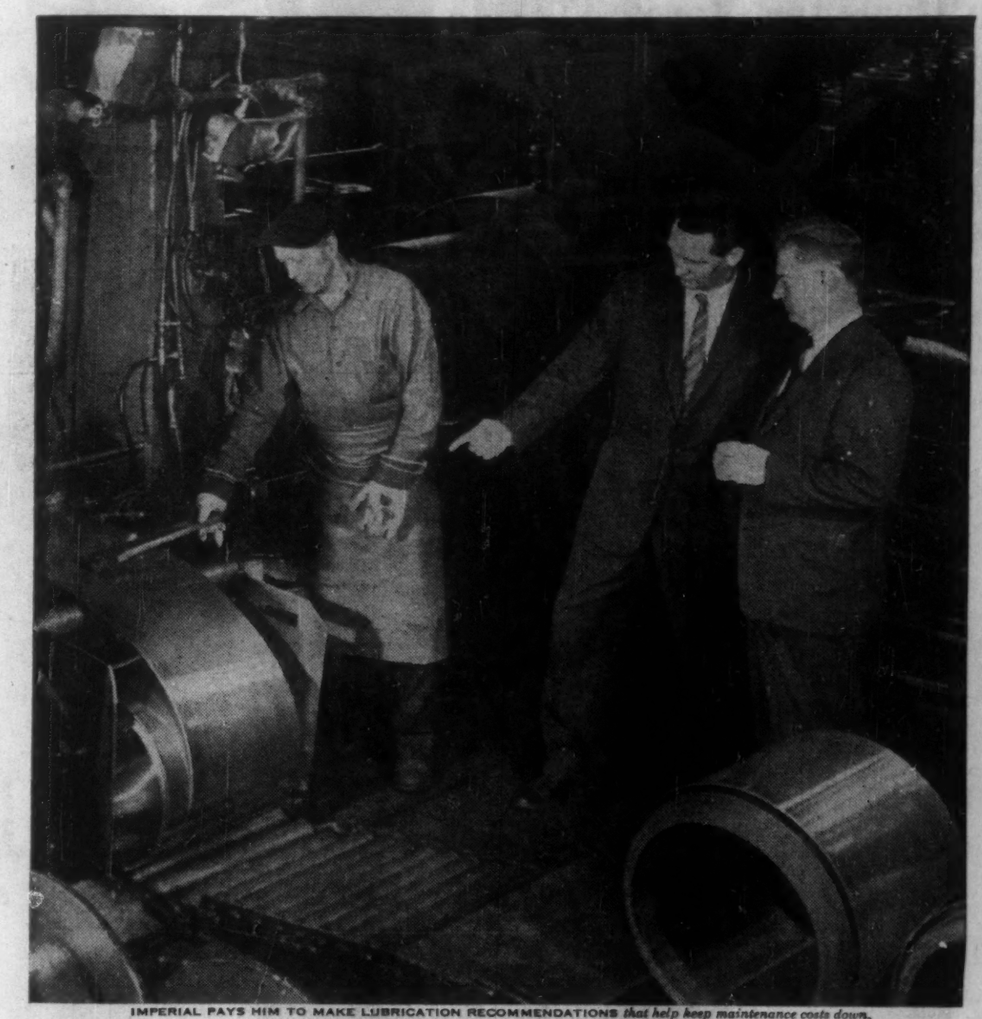
Marysville Plant Opens in Spring

From Our Own Correspondent

FREDERICTON — Early next spring will see completion of the remodeling and installation of machinery at the **Hamilton Cotton Co.** mill at nearby Marysville. The reopening of the plant, closed two years ago, should come a short while later.

A Hamilton firm, **James Kemp Construction Ltd.**, has been engaged since early July in remodeling the four-storey mill, five-storey warehouse, two-storey cotton storage building and auxiliary buildings, plus putting 400,000 sq. ft. of floor space back in shape.

First shipment of machinery for the mill, formerly owned and operated by **Canadian Cottons Ltd.**, is scheduled to arrive in Marysville this week.



IMPERIAL PAYS HIM TO MAKE LUBRICATION RECOMMENDATIONS *that help keep maintenance costs down.*

HE'S ON YOUR STAFF BUT NOT YOUR PAYROLL

The Imperial Oil representative's job is to work with your staff, at our expense. He is qualified to analyse lubrication problems and make recommendations in the plant or in the blue print stage. Through him, Imperial's vast experience and continuing research in lubrication is always at your service.

IMPERIAL ESSO PRODUCTS

Phone or write your nearest Imperial Oil Sales Office for Engineering Service on lubrication—a member of Canada's largest staff of lubrication experts is located near you.

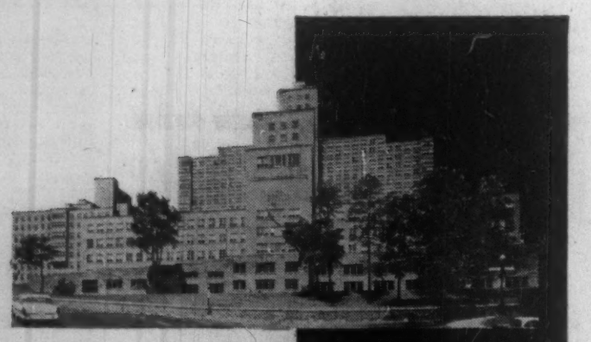
ALWAYS **LOOK TO IMPERIAL** FOR THE BEST

Electrical Inspectors Will Meet Nov. 2-3

At the 1956 Canadian annual meeting and convention of the International Association of Electrical Inspectors to be held Nov. 2 and 3 at the Park Plaza Hotel, Toronto, "CSA Codes for Safety" will be the theme.

The educational program includes 11 technical papers, two panel discussions and two films. Three hundred delegates from all provinces are expected. Don Henshaw of **MacLaren Advertising Co.** is guest speaker at the luncheon Nov. 3.

INLAND CEMENT CO. has received payment covering an additional 867 participating preferred shares at $10 each, comprising part of option with **Kemet Ltd.** Now 618,367 participating preferred shares outstanding.



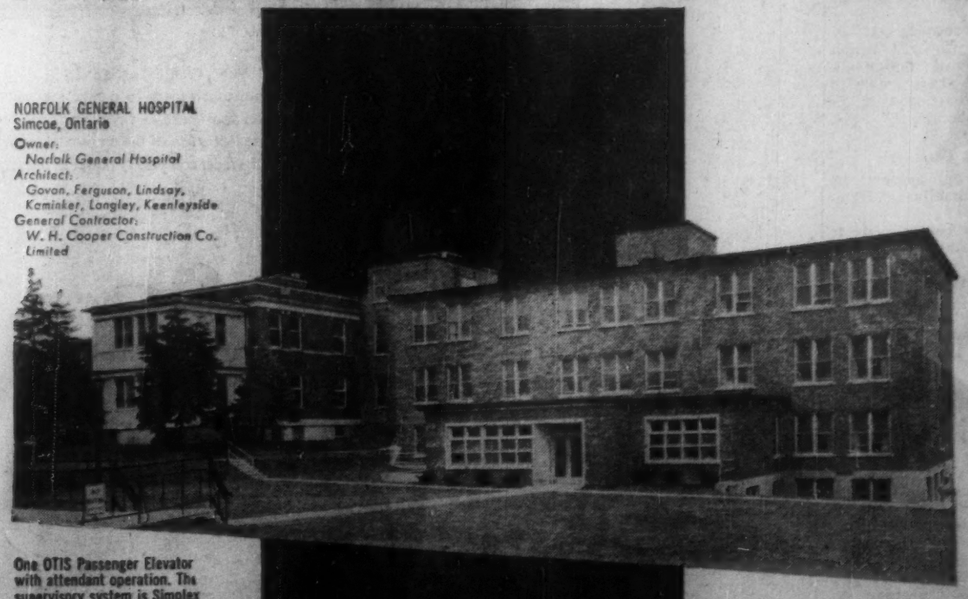
MONTREAL GENERAL HOSPITAL
Montreal, Quebec
Owner: Montreal General Hospital
Architect: McDougall, Smith & Fleming
General Contractor: Anglin-Norcross (Quebec) Limited
Six OTIS Passenger Elevators with attendant operation. The supervisory system is AUTOTRONIC® Signal Control.

No elevator installation is too small

BETTER ELEVATORING IS THE BUSINESS OF OTIS

No elevator installation is too large

NORFOLK GENERAL HOSPITAL
Simcoe, Ontario
Owner: Norfolk General Hospital
Architect: Govan, Ferguson, Lindsay, Kaminker, Langley, Keenleyside
General Contractor: W. H. Cooper Construction Co. Limited



One OTIS Passenger Elevator with attendant operation. The supervisory system is Simplex Collective Control—arranged for changeover to Duplex operation when a second elevator is added.
Also installed are two OTIS Electric Dumbwaiters with Multi-Button Operation.

WE'LL BE GLAD TO SEND YOU ANY OR ALL OF THESE BOOKLETS:
Booklet AC-381 describes Otis Elevators for the Modern Hospital.
Booklet AC-413 describes Otis Autotronic Without-Attendant Elevators.
Booklet AC-411 describes Otis Electric Dumbwaiters.
Booklet AC-382 describes all Otis Vertical Transportation equipment and services.
Booklet BC-720 describes Otis Self-Supporting Light Duty Freight Elevators.
Booklet BC-705 describes Otis Heavy Duty Freight Elevators.
Booklet AC-414 describes Otis Plunger Electric Freight Elevators.

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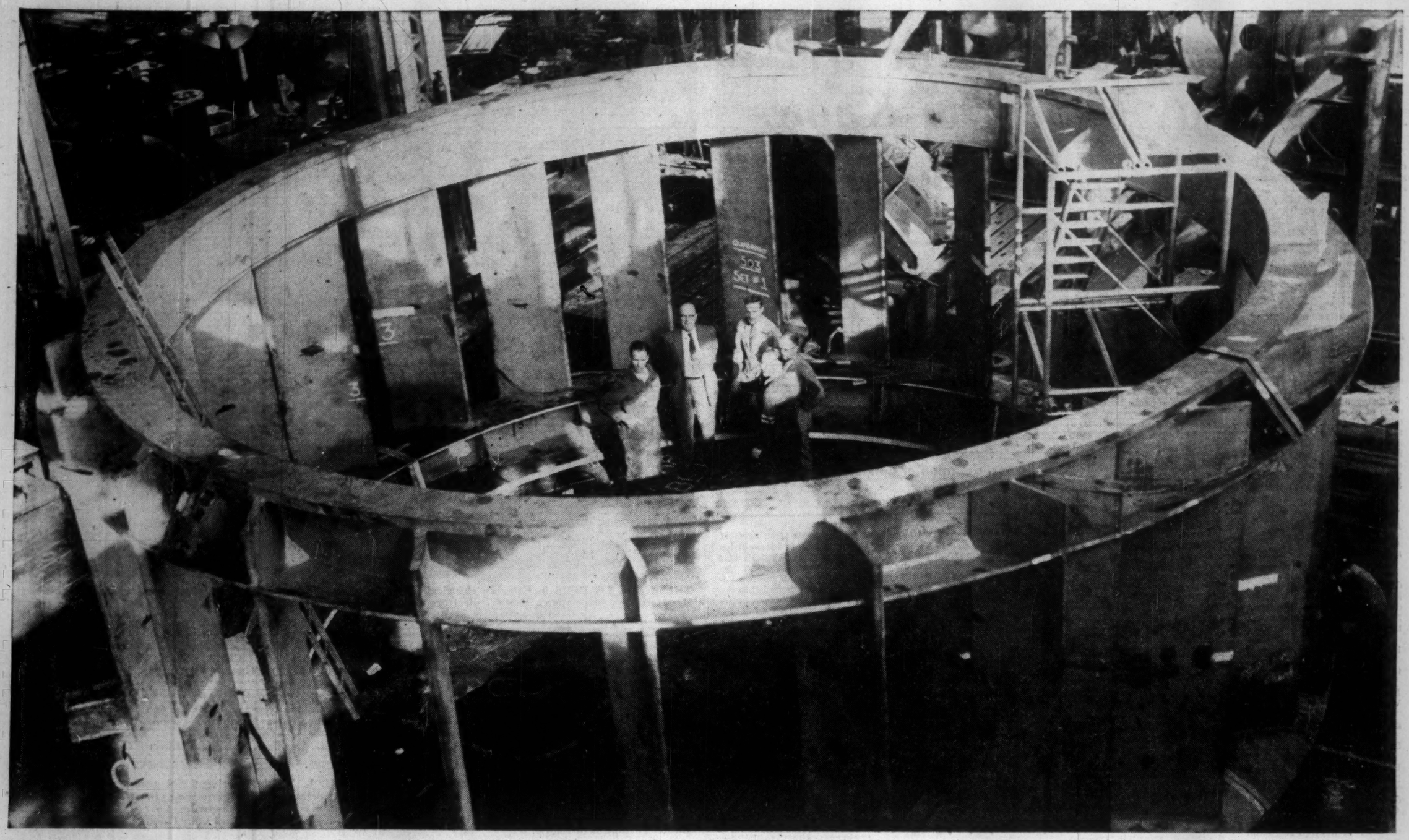
OTIS ELEVATOR COMPANY LIMITED • HEAD OFFICES AND WORKS: HAMILTON, ONTARIO • OFFICES IN 26 CITIES ACROSS CANADA



Electricity: Canada's Billion-Dollar Muscle Power

TUNE your ears and you can hear the basic secret of Canadian productivity. Listen for the hum of electric motors.

Electricity today does 80% of the work in our factories. Tomorrow: 90% of the work, in 2% more factories each year.

The industry which makes electrical apparatus held ninth place as a major dollar producer in 1939. Today it rates third.

The electric "horsepower race" is one Canada can't afford to lose. The day we flick the switch and nothing new happens is the day Canada begins declining as a competitive nation.

How goes the race? Touch-and-go, it seems.

This year our combined generating equipment, public and private, is capable of producing about 21.3 million hp. By 1959 it will be capable of 27.4 million hp. Across the land new power units will add 1.8 million hp to our potential this year, more next year and the next, adding a 1.7 million hp boost in 1959.

For all that, the supply-demand equation appears just in balance. "We're slightly ahead, but battling to stay there," power men say.

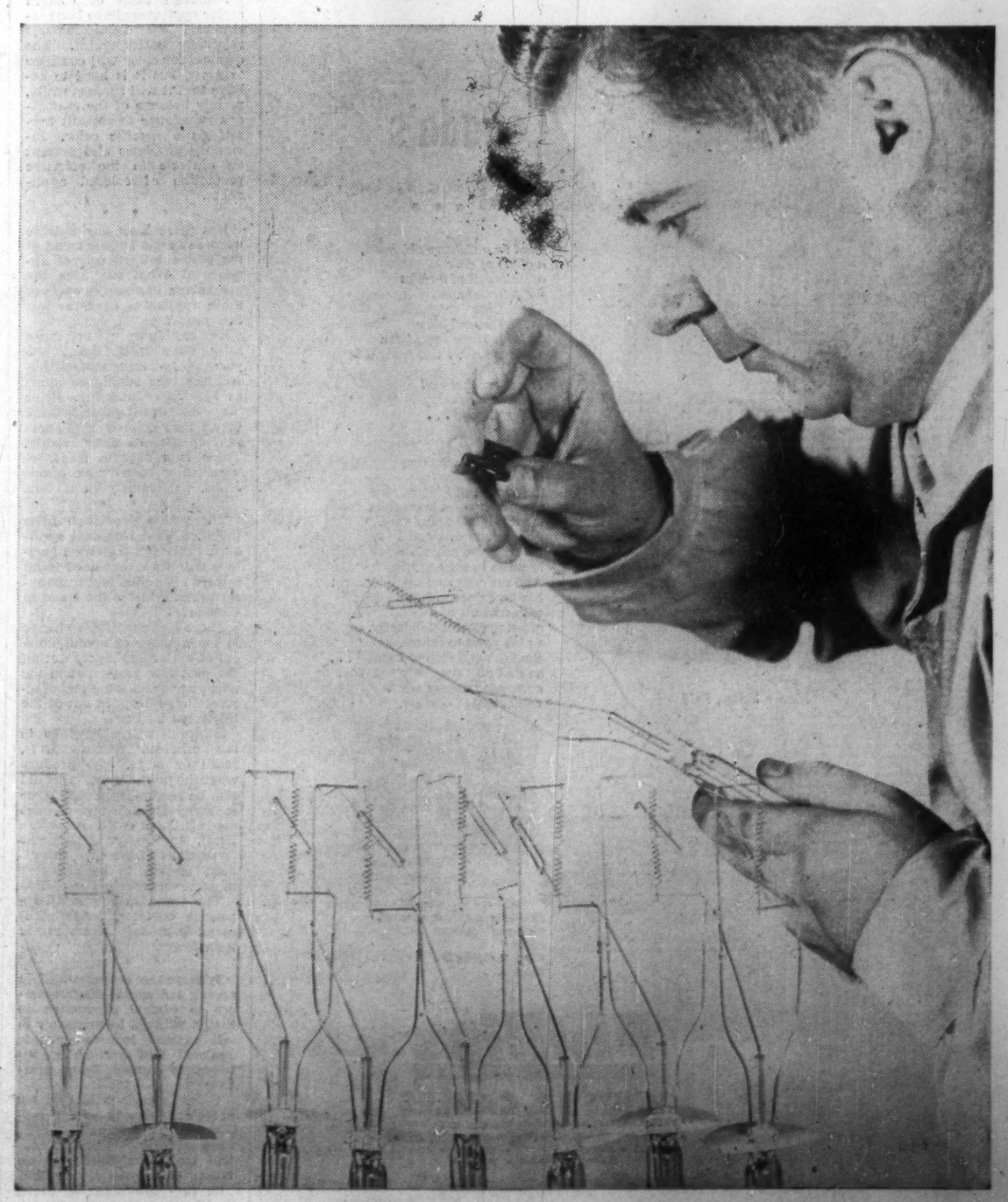
What is this industry-behind-industry?

It's generating stations, sparking out more than 75 billion kwh of power a year. It's 460 companies which manufacture about $1,000 million in power-making and power-using machinery annually.

It's a gigantic 33-ft. speed ring for the St. Lawrence Project turbines (photo above); it's a tiny new filament for brighter light bulbs (at right).

It begins with a drop of rain, in a hydraulic turbine, or a steam valve. It serves in your plant's lathe, a printing press, or conveyor belt.

This Financial Post feature report tells Canada's electrical story.



The Financial Post

Vol. L Publication Office: Toronto. October 20, 1956 No. 42

Your Electrical Life in '57? Answers by Man Who Knows

What will prices for electrical goods be in 1957? What styles and trends are likely?

These were among the hundreds of questions asked at the recent annual meeting of the Canadian Electrical Manufacturers' Association.

Here are some of the answers given by the association's retiring president, H. M. Turner, chairman of Canadian General Electric Co.

Do manufacturers of electrical appliances foresee any great change in sales due to the introduction of natural gas?

No appreciable change in sales of electrical appliances is foreseen. What is foreseen, however, is greater sales effort on the part of manufacturers, distributors and dealers alike. The growth of the market for electrical appliances is expected to continue with little over-all effect from gas.

* * *

An increasing number of housing developments are using natural gas in preference to electricity for appliances. Is CEMA taking any positive action to counteract this tendency?

Some housing developments are using natural gas, but the ratio of gas appliances to electrical appliances, when applied to all new homes, is definitely not increasing. This situation, however, is a challenge to each appliance manufacturer, and the industry as a whole. It is a builder's option, a matter of dollars and cents, regardless of satisfaction to the householder.

* * *

In view of the recent increase in the price of steel will prices of electrical appliances go higher in 1957, and by what approximate percentage?

The increase in the price of steel, combined with other material and wage increases, indicates slightly higher prices for appliances in 1957. It is estimated that these price increases will range from 5% to 10% at the consumer level, and will probably become effective early in the year when the new lines are introduced. Some of the increases may occur before the end of 1956.

* * *

Electrical Goods And Trade Stamps

In the current wave of trading stamp and premium offers by food stores, blame is laid on the doorstep of electrical manufacturers for seeking volume distribution through this medium. It has been charged that premium companies are able to buy appliances in quantity at better prices than are available to regular dealer outlets. Any comment?

Electrical manufacturers did not promote the premium schemes with food stores. They were initiated by the stores themselves, who approached small-appliance distributors for prices. Under existing resale price maintenance legislation, manufacturers cannot dictate selling prices to their distributors, nor can they ask distributors to refrain from selling certain retailers because the retailers are selling below suggested retail prices.

Small appliances have been offered periodically by electric appliance dealers in major metropolitan centres below the prices in the food stores. Appliance dealers buying in quantity lots are, we are told, getting as favorable prices from distributors as the food stores.

The industry is naturally interested in any big volume dealer whether there are trading stamps involved or not. However, the statement that these stamp and premium companies are able to buy at better prices is simply not true. Electrical manufacturers offer the same quantity price to any and every customer, trading stamp and premium companies included.

* * *

What effect is expected from the Government's action to curb borrowing on the sale of major appliances by deferred payments?

The appliance business is extremely sensitive to changes in credit policy, and the Government's recent action means that the dealer is going to find it more costly and more difficult to extend credit to his customers. This will certainly have a reducing, but not a crippling, effect on the sale of major appliances. It will also tend to restrict the market because of reduced numbers of housing starts.

* * *

Is the trend toward more package installations of built-in ovens and cooking tops in new homes and apartments likely to affect the retail market for these goods? Do the manufacturers anticipate securing most of their business for built-ins through package installations rather than retail dealers?

Since the cost of built-in appliances can be included in the mortgage on new homes, builders are encouraged to install these items as packaged units. There is a definite trend toward this type of package installation, but, since it is a relatively new venture here in Canada, no definite marketing pattern has yet been established. It is expected, however, that as the trend develops, the bulk of the business will be divided between direct sales to builders and to dealers specializing in built-in equipment and kitchen planning.

* * *

Are any manufacturers selling built-in appliances direct to builders and contractors?

We believe that some manufacturers are selling built-in appliances direct to builders and contractors, possibly to minimize distribution costs.

* * *

Colored Appliances Still Unimportant?

Last year electrical manufacturers considered colors in appliances an unimportant trend. The past year has seen a growing emphasis on color. Will it continue, will colors surpass white, in the opinion of the manufacturers?

Although sales of colored major appliances have been increasing, the trend remains relatively unimportant. The demand for color will continue to grow, but it is hard to believe that it will surpass white, mainly because of the customer's reluctance to commit herself on a specific color. Inventory problems also present an obstacle in the effective promotion of colored appliances.

* * *

Has there been any notable upsurge in the buying trend of the public toward colored appliances? What has been the percentage increase in sales of these appliances over the last two years?

Colored major appliance sales were insignificant two years ago, whereas some manufacturers are selling as much as 15% in color today. Some large apartment projects have found that colored appliances rent apartments more readily. There is a definite trend toward color in portable appliances, particularly in mixers.

* * *

There is a prediction from the U. S. that electrical appliance, radio and television business will see a continued trend toward fewer and larger manufacturers. What is the trend in Canada?

There has been little change in the number of manufacturers of major appliances during the past few years, but in the past year or so some manufacturers have dropped out of the television business.

Business will always go to the efficient manufacturers, small or large, who produce what the public want. It should also be remembered that, since so many Canadian companies are affiliated with American firms, any major separations or mergers in the U. S. are almost certain to be reflected to some degree in Canada.

The trend in the small-appliance business, however, is to more manufacturers rather than fewer.

* * *

Is there any movement afoot among individual manufacturers to control production so that it will not be necessary to sell carload lots to cut-rate dealers? Will there be any attempt to curtail these practices?

Sales in carload lots do not necessarily imply excess production. Individually, most manufacturers attempt to control production directly in relation to consumer demand. The very low potential profit

(Continued on page 53)

THESE ARE LEADERS in Canada's electrical manufacturing industry. They are some of the Canadian Electrical Manufacturers Association's 1956-57 directors and officers. Left to right:

Seated—Keith H. Rapsey, vice-president and general manager, Allen-Bradley Canada Ltd. (secretary); G. L. Wilcox, president, Canadian Westinghouse Co. (a vice-president of CEMA); H. M. Turner, chairman of the board, Canadian General Electric Co. (immediate past-president of CEMA); Col. R. D. Harkness, president, Northern Electric Co. (president of CEMA); T. J. Bell, president, Fiberglas Canada Ltd. (a vice-president of CEMA); W. I. Turner, president and general manager, Canadian Controllers Ltd. (a vice-president of CEMA); Thomas Edmondson, president, Packard Electric Ltd. (treasurer).

Middle Row—O. W. Titus, vice-president and general manager, Canada Wire and Cable Co. (a CEMA past-president); R. E. Bamley, managing director, Thomas & Betts Ltd.; R. Noonan, general manager, Pioneer Electric Ltd.; K. V. Farmer, vice-president and general manager, Canadian Ohio Brass Co. (a past-president of CEMA); A. K. Jordan, general sales manager, Aluminum Co. of Canada; S. M. Finlayson, president, Canadian Marconi Co.; W. J. Gilson, president, Eastern Power Devices Ltd.

Back Row—B. Napier Simpson, general manager of CEMA; H. L. Wright, president and general manager, Curtis Lighting of Canada; L. H. Duncan, vice-president and general manager, The Silex Co.; B. W. Ball, president, CEMCO Electrical Manufacturing Co.; H. A. Cooch, consultant, Canadian Westinghouse Co. (a CEMA past-president); V. N. Longtin, president, Pirelli Cables, Conduits Ltd., and Iberville Fittings Ltd.; Claude Rousseau, president, Electrical Manufacturing Co.

R. D. Harkness Heads CEMA Slate of Directors Named

Col. R. D. Harkness, president, Northern Electric Co., Montreal, was elected president of Canadian Electrical Manufacturers Association at the group's annual meeting.

Directors elected for the 1956-57 term of office include:

R. E. Bailey, managing director, **Thomas & Betts,** Montreal;

B. W. Ball, president, **Cemco Electrical Manufacturing Co.,** Vancouver;

T. J. Bell, president, **Fiberglas Canada,** Toronto;

H. L. Burrow, president, **Sangamo Co.,** Leaside, Ont.;

W. C. Cannon, president, **Frigidaire Products of Canada,** Scarborough, Ont.;

L. H. Duncan, vice-president & general manager, **The Silex Co.,** St. Johns, P.Q.;

W. H. Evans, president, **Minneapolis-Honeywell Regulator Co.,** Leaside, Ont.;

S. M. Finlayson, president, **Canadian Marconi Co.,** Montreal;

W. J. Gilson, president, **Eastern Power Devices,** Toronto;

C. R. Hughes, president, **Automatic Electric (Canada),** Brockville;

A. K. Gordon, general sales manager, **Aluminum Co. of Canada,** Montreal;

J. W. Kerr, vice-president & general manager, **Triangle Conduit & Cable (Canada),** Toronto;

R. H. Line, president, **Kelvinator of Canada,** Rexdale, Ont.;

V. N. Longtin, president, **Pirelli Cables, Conduits,** and **Iberville Fittings,** St. Johns, P.Q.;

Richard Noonan, general manager, **Pioneer Electric,** Winnipeg;

W. G. Robson, president, **Otis Elevator Co.,** Hamilton;

Claude Rousseau, president, **Electrical Manufacturing Co.,** Montmagny, P.Q.;

H. B. Style, president, **John Inglis Co.,** Toronto, and **English Electric Co. of Canada,** St. Catharines;

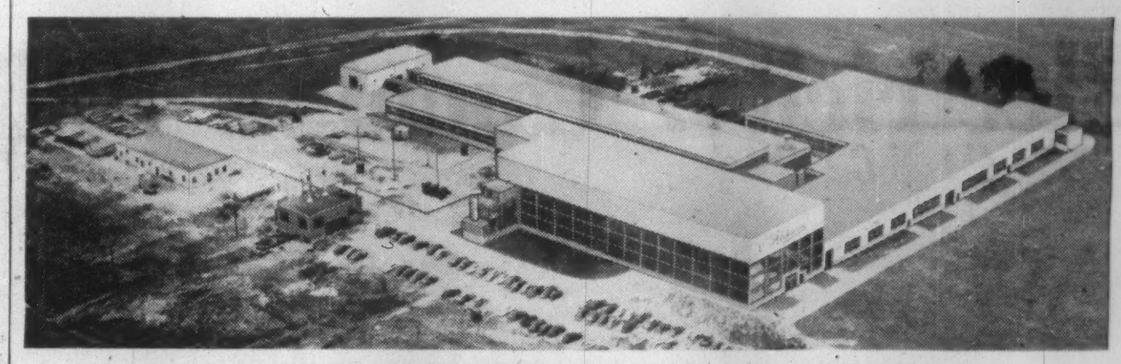
H. M. Turner, chairman of the board, **Canadian General Electric Co.,** Toronto;

W. I. Turner, president, **Canadian Controllers,** Toronto;

E. H. Walker, president, **The McKinnon Industries,** St. Catharines;

G. L. Wilcox, president, **Canadian Westinghouse Co.,** Hamilton;

H. L. Wright, president, **Curtis Lighting of Canada,** Leaside, Ont.



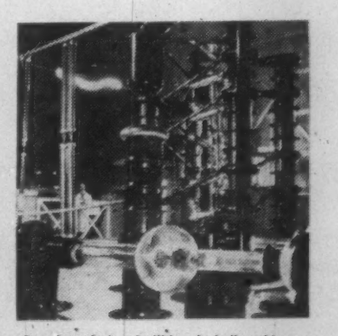
Plant No. 2, built on the outskirts of St. Catharines in 1951, is being constantly expanded to provide greater service to the increasing demands of utility and industrial requirements for electrical apparatus.

SPECIFY PACKARD

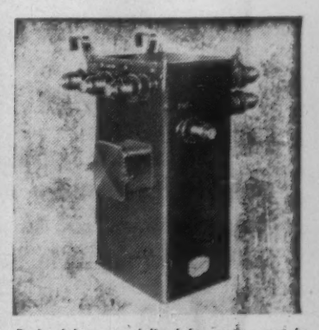
for Proven Performance and Personalized Service

Since it was founded in 1894 as a pioneer in electrical manufacturing in Canada, Packard Electric has kept pace with rapidly expanding industry. And even in those early days Packard stood for quality products. Transformers and watthour meters built at the turn of the century are still in use giving good service today.

Through every phase of its growth, Packard Electric has maintained a reputation for personalized service. Packard research and development engineers work closely with production men to solve individual problems posed by unique applications. Packard sales representatives work in close liaison with both engineering and production departments to meet your most exacting needs.

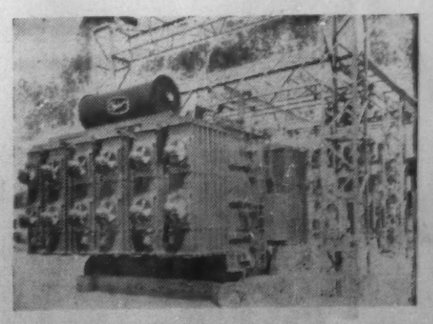


Complete testing facilities, including this versatile impulse generator, enable Packard engineers to conduct quality control and performance tests on their complete range of equipment from 115 volt watthour meters to high voltage power transformers.



Packard have specialized for many years in the manufacture of an extensive range of instrument transformers. All designs comply with the highest accuracy classifications, test levels and physical requirements of utilities and switch board manufacturers throughout Canada.

Packard has made many outstanding contributions in the field of transformer design. A complete line of transformers range from small 3 KVA rural type distribution transformers to 50,000 KVA 171 KV, power transformers. Standardised lines as well as transformers built to special requirements with all types of cooling are also available. And Packard furnace transformers are known and used throughout the world.



SINCE 1894 Packard

In Meters — Relays — Power, Distribution and Instrument Transformers

PACKARD PERFORMANCE MEANS PROVEN PERFORMANCE

Packard Electric

PACKARD ELECTRIC COMPANY LIMITED, ST. CATHARINES, ONTARIO

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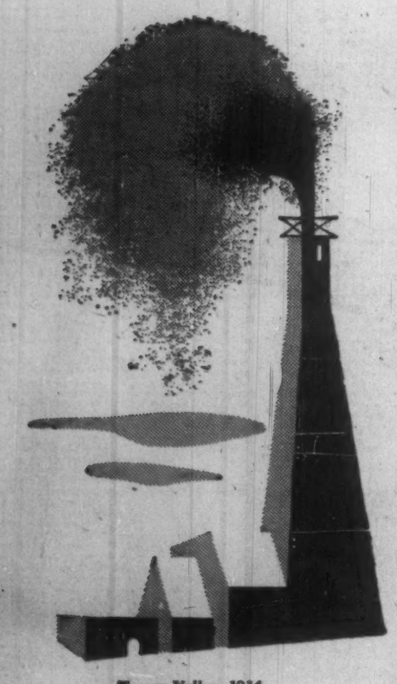


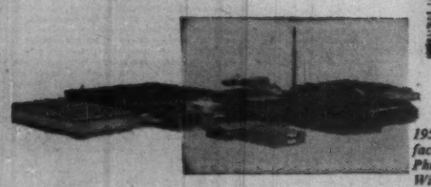
Turner Valley, 1914

Canada's first . . .

Lead by a Calgary alderman, a group of civic officials staked a claim for petroleum and natural gas in the Turner Valley in 1911. Three years later Dingman No. 1 was brought in on this site. It was the first well in Canada's first major oil field . . .

. . . At the same time, on the other side of the continent, Phillips were producing wires and cables for this budding industry. Phillips had originated the wire and cable business in Canada. And the company's development has kept pace with the requirements of a growing electrical ihdustry. In the years to follow, Phillips continued to expand . . . so that now they have the most complete range of wires and cables in Canada.

1889—Original factory of the Eugene F. Phillips Company in Montreal.



1956—Present factory of Phillips Wires & Cables in Brockville.

Phillips

ELECTRICAL COMPANY LIMITED

WIRES & CABLES

THE CANADIAN AFFILIATE OF THE B. I. C. C. GROUP

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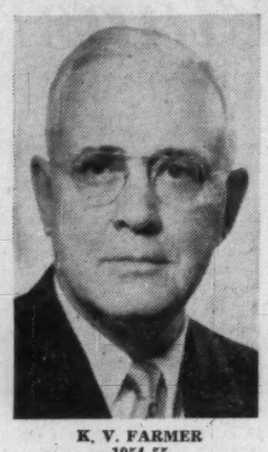
CEMA Presidents

BRIG. F. C. WALLACE
1952-53

O. W. TITUS
1953-54



K. V. FARMER
1954-55

H. M. TURNER
1955-56

COL. R. D. HARKNESS
1956-57

Power: Your Standard-Builder

By HON. DOUGLAS CAMPBELL

For several years Canada has established new and impressive records in the pace of its industrial expansion.

We have been adding capital facilities at a rate which few countries have ever equalled, resulting in not only bigger incomes, greater prosperity and higher standards of living for Canadians, but also in increasing influence and responsibility in world affairs.

This year is no exception. In fact, taking the most recent statistics as indicating its achievements, 1956 will prove to be the most prosperous in the history of Canada because, at last report, Canadians were producing goods and services at an annual rate some 10% higher than in the same period of 1955.

Two of the major reasons for Canadian economic success are expansion of trade and the enormous additions being made to our productive capacity.

These two pillars of Canadian prosperity have been fundamental to this country's economic development since our earliest days.

How does a country secure a high standard of living in the face of heavy transportation charges and a relatively small population? The answer is in its ability to utilize mechanical energy, thus multiplying the manpower effectiveness of the country.

This is what Canada has done. Our use of energy in the form of petroleum, natural gas, electricity, and coal is almost 180 million BTU's per person, or nearly 90% of the U. S. use and about 1½ times the per capita requirement.

Expressed in another fashion, Canada, with its great distances and sparse populations, requires about 25% more mechanical energy to produce one unit of gross national product than does the U. S., a more compact and densely populated nation.

The transportation problem is not confined only to the marketing of our produce; it is fundamental in our energy picture as well. The markets for our vast reserves of energy-producing resources are often located far from sources.

Future Power Needs

Canada has for many years ranked among the highest users (on a per capita basis) of electrical energy.

In my own province of Manitoba I have witnessed at close hand, some of the implications of electrical power upon various fields of public policy.

I have had a unique vantage point from which to see the economic and social impact of low-cost central station power upon agricultural communities, and the part it plays in the establishment of industry in our smaller centres.

Our government, with the almost unanimous support of the Legislature, accepted two basic principles of public policy toward power.

- The first of these was that adequate supplies of electrical power are so vital to the general well-being that the full resources of the government should be placed behind a suitable program for power development.
- Second, that if the government were to guarantee the solvency of a new provincial corporation competent to perform these functions, that corporation should be placed in the soundest possible financial position.

Our power industry has been reorganized to achieve a proper delineation of service areas between our main distributors, eliminating the competitive distribution which for so long handicapped intelligent power planning in Manitoba.

We have interconnected and co-ordinated the operation of all the major generating stations in our province. We have been able to work out with Ontario mutually beneficial arrangements for the interconnection of the Manitoba and Western Ontario systems.

The total generating capacity which our Hydro-Electric Board has developed since 1950 plus what it will develop by 1960 will exceed the total generating capability that was in place in Manitoba in 1950.

I have implied, because I believe it to be so, that adequate supplies of reasonably low-cost electrical power, distributed as it may be required, form one of the most vital ingredients in our increasing productive capacity.

Industry's Job

I should be less than frank if I did not add that in my view the electrical manufacturing industry of Canada has played a great part in bringing this about and that it has an even greater part to play in the future.

It is in this industry that a great deal of the research with respect to future power use must be done.

It is this industry that will pioneer and develop still more household appliances.

It is the technical branch of the electrical manufacturing industry that will develop ever more and more applications of electrical power to industrial processes and requirements.

Also, it is to this industry that many of us will look for a constant stream of innovations and improvements to power system equipment, most of which will be directed toward increased reliability and a reduction in cost.

As I see it, the manufacturer of electrical equipment in Canada has two large roles. With one hand he develops and pushes forward the uses of and demand for electrical power. With the other he aids and must aid in the constant improvement of the techniques and equipment of the power industry.

Insofar as this latter function requires him to do so, he must follow closely upon the heels of the fundamental scientist, into the realms of semi-conductors, or nuclear science, or thermo-nuclear power, or solar energy, or wherever else the most daring physicists may care to lead.

In peering into the future, I should like to see increasing use made of universities.

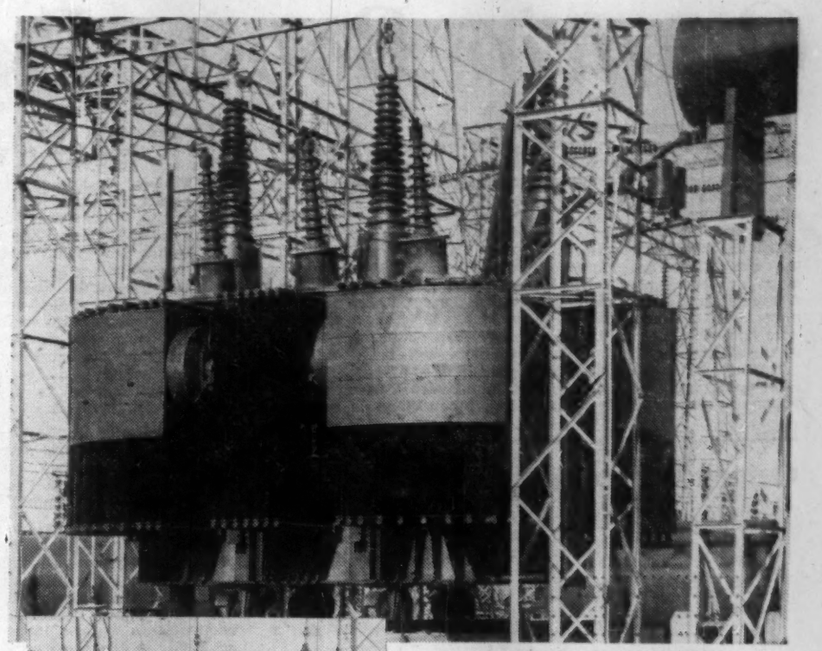
I should like to see more research fellowships established in universities, especially in western universities. I should like to see more problems taken to the men, and fewer of the men to head offices, because the latter may not necessarily be where the answers can best be found.

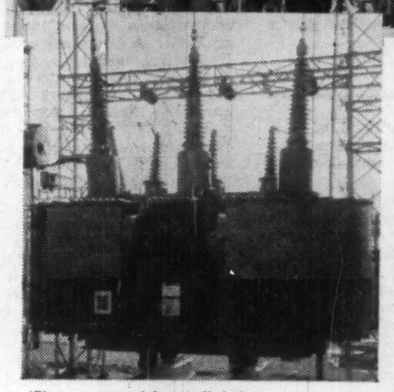
How do electrical manufacturers fit into the picture of future power use?

What are their responsibilities and opportunities?

At the recent annual meeting of the Canadian Electrical Manufacturers Association, Manitoba Premier Douglas Campbell took a look at these and other questions.

Here's a digest of his address.





(Photos courtesy of Ontario Hydro)

ASEA

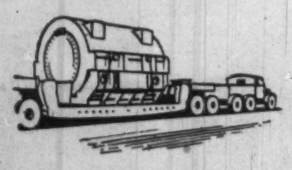
TRANSFORMERS
chosen by
Ontario Hydro

Two ASEA 104,000/115,000/52,000 KVA, 228.8/116.9/12.75 KV transformers recently placed in service at H.R. Martindale T.S., Sudbury, and A.W. Manby T.S., Toronto by the Hydro-Electric Power Commission of Ontario.

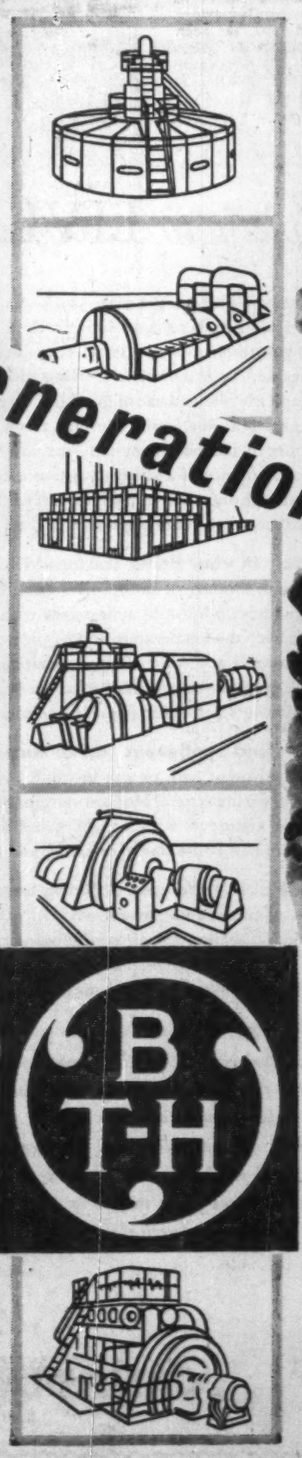
ASEA equipment is sold and serviced in Canada by

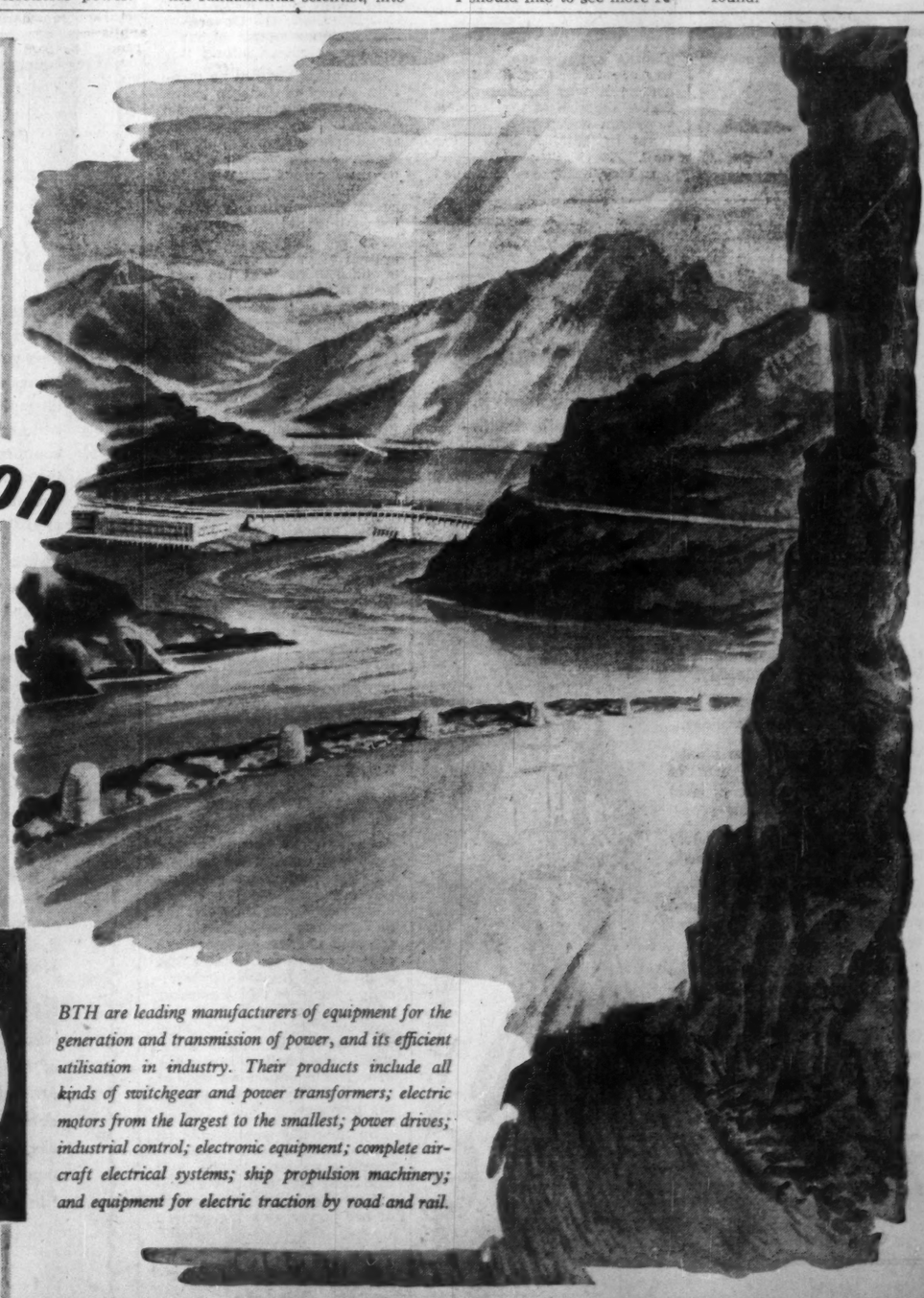
SWEDISH GENERAL ELECTRIC
LIMITED
MONTREAL TORONTO

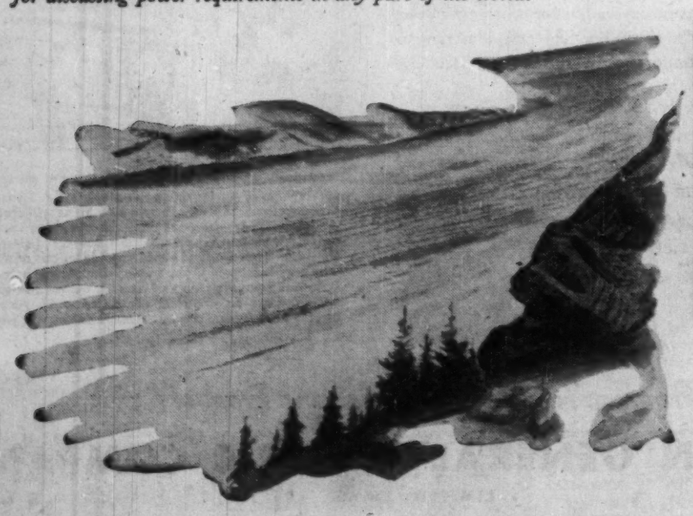
ELECTRIC
POWER
generation



WHEREVER the world needs power plant, the British Thomson-Houston Co. Ltd. can provide it. Some of the largest and most advanced steam turbo-generators, hydro-electric waterwheel generators and gas turbo-generators have been designed and installed by BTH at home and overseas.
The generators for the great Owen Falls Hydro-electric station in Uganda and for the remote Artias Power Station in the High Pyrenees . . . the turbo-alternators for the Tallawarra Power Station in New South Wales and the first gas turbine in Africa at Nairobi . . . two special steam turbines in Holland and a new 75,000 kW turbo-alternator set at Barking 'C' Power Station—these and many other recent achievements are the solid proofs of BTH experience and skill. *The services of BTH engineers are available for discussing power requirements in any part of the world.*







B
T-H

BTH are leading manufacturers of equipment for the generation and transmission of power, and its efficient utilisation in industry. Their products include all kinds of switchgear and power transformers; electric motors from the largest to the smallest; power drives; industrial control; electronic equipment; complete aircraft electrical systems; ship propulsion machinery; and equipment for electric traction by road and rail.

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Ontario Boosts Power Growth Plans

In upstair rooms of Ontario Hydro's headquarters on University Avenue, Toronto, the power planners are taking a second look at estimates of future requirements.

And from their revised calculations, arise the promise of the biggest market increase ever for scores of electrical manufacturing firms whether they build generators, make wire and cable, or concentrate on the kitchen toaster.

It looks as though the growth rate upon which the power planners worked early last year was too modest, even though it was carefully calculated from past trends and future potentialities.

Hydro's estimates of load increases are based on the long-term rate of growth. In the southern Ontario region this equalled 6.1% per year from 1922 to 1955. For the more recent period of 1950 to 1955, the rate of increase was 8.5% per year.

But the current spurt in demand which became particularly apparent last fall has forced Hydro to speed up forward plans and could result in the building of new power plants in provisionally-scheduled areas sooner than was contemplated at this time last year.

These were the figures which caused Ontario Hydro to lengthen its forward stride. At the end of 1955, preliminary estimates showed power demands in southern Ontario zooming 14% above 1954 — more than double the average annual long-term rate of growth. Was it going to continue? Hydro took no chances and, in an effort to re-establish a capacity lead of 10% over requirements, put new expansion plans into operation immediately.

But the growth in demand continued at breakneck pace. In the summer of this year in industry-packed southern Ontario, it was running 11% above the 1955 rate in the same period. In recent weeks, demand for power has been going up at the rate of between 8% and 10% a year and, sometimes, the increase has been still greater.

Just last week, Hydro's general manager, A. W. Manby, stated: "The load growth in the last few years has been absolutely fantastic. Plans made five years ago to meet demand for electricity are already out of date. It would not surprise me if our present expansion plans prove inadequate. We well may have to step out and do more than we plan now."

The revamping of expansion plans has been announced in stages by Hydro. First came the statement that the 820,000 kilowatt St. Lawrence Seaway powerhouse would start producing probably in the late summer of 1958—a year sooner than was originally anticipated.

Early this year came the decision to proceed with two more 75,000 kw units at the Sir Adam Beck-Niagara station where expansion has been proceeding steadily ever since it was opened in 1954. Simultaneously, it was decided to increase the size of the Richard L. Hearn steam plant at Toronto by another 200,000 kw unit.

In May, because of continued and unprecedented demand for power by pulp and paper, mines and other industry in northwestern Ontario, Hydro had to start work immediately on a new 75,000 kw. power development at Caribou Falls on the English River and make plans for adding a fifth unit of 13,600 kw to the Manitou Falls generating station now under construction also on the English River. Cost of these additions for the northwest alone, including extra transmission facilities, was estimated about $37.5 million.

There followed another two 75,000 kw units at the Adam Beck station, and two more 200,000 kw units for the Hearn steam station at Toronto.

Most of the growth has taken place in southern Ontario but, proportionately, the rise in the northwestern region has also been spectacular. Between 1945 and 1955, power demands in northwestern Ontario increased 216%. In the same period, Hydro increased its resources in the area from 123,100 kw to 317,400 kw or about 158%, by extending the Ear Falls plant, and going ahead with new developments at Aguasabon and Pine Portage and bringing the first two units at Manitou Falls into service.

Later, the construction of the Whitedog Falls plant on Winnipeg River was authorized and will add 54,000 kw to the capacity of the northwestern system by 1958. Early this year, a new unit at Alexander Falls and another at Cameron Falls, representing a further 31,000 kw, were authorized.

The later expansions — at Caribou and Manitou Falls — followed soon afterwards because of firm requests for additional large blocks of power in the area and continued enquiries for power.

The fifth unit at Manitou Falls is scheduled for service in spring 1958 and will be followed by the first Caribou Falls unit in the latter part of that year. The second and third units at Caribou are scheduled for service early 1959.

Checking New Sites

Meantime, Hydro was already preparing for further new developments. Checks on sites at Hamilton and the Lakehead were in hand or contemplated. Plans for these areas are still in the provisional stage but it seems likely that Hamilton will be authorized within a couple of years and the Lakehead later.

Such plans have to be made with plenty of time to spare. In the provision of steam plants, prime considerations are the provision of fuel and water. At the Hearn station, for instance, it's estimated that a million gallons of water every five minutes is needed for cooling and other purposes when the plant is in full operation at its present capacity of 400,000 kw. On the same basis, it needs 200 tons of coal an hour, and it has storage accommodation for 800,000 tons of coal to cover the winter period when the fuel cannot be shipped in.

That's why Hydro, with about 40 acres of land already in its possession at Hamilton needs almost as much again for the establishment of a new steam plant there of a million kilowatt capacity or more.

The same considerations would apply to Lakehead where foundation and other tests are now going forward and options are being arranged on land for a possible future site for another new steam-generating station.

This work is regarded by Hydro as a safeguard for future supply of the rapidly expanding northwestern area. There have also been suggestions that the fuel would be natural gas but that is a matter for decision in the future.

Trend To Steam

The outstanding feature of current hydro moves is the definite trend toward increasing the supply from steam-generating stations. It has been known for a long time that the St. Lawrence development represented the last major source of hydro power in Ontario that could be developed economically. There is still a number of hydro locations which will be developed later but their potential is comparatively small—too small to make any appreciable impact on present growth in the southern part of the province.

So now the emphasis is on steam, and within 20 years or possibly sooner, Ontario will find that fuel plants are providing the biggest proportion of her power — a big pattern change for an area which has always counted cheap hydro power as one of its greatest industrial assets.

Where will these new steam plants go? The first will almost certainly be located at Hamilton on a waterfront site and of a capacity at least equal to if not exceeding that of the Hearn station. It could be that Ontario's existing steam plant at Windsor will be extended. Its capacity is presently 264,000 kw and no provision was made for extension beyond that capacity when it was built. But Hydro has enough land at that plant to go ahead with expansion if that becomes necessary and desirable.

Plans for the Lakehead are described as long-term. That would mean a final decision on building there held off till after 1960.

On current estimates, Hydro expects in four years' time to more than double its capacity in conventional fuel power. Its two steam plants at Toronto and Windsor presently have a combined capacity of about 600,000 kw. By 1960, up to 600,000 kw will have been added through new units at the Toronto plant.

But five years after that, conventional fuel is expected to provide 3 million kw. That is where Hamilton will come in and possibly the Lakehead.

Nuclear Power

On the nuclear side, Hydro is looking for big developments soon after the NPD plant now building for the site at Des Joachims on the Ottawa River comes into operation in 1959.

NPD, in itself, will provide a mere 20,000 kw but it is an experimental project and a precursor for major development. In Hydro estimates, nuclear power in Ontario is expected to represent a capacity of more than 400,000 kw by 1965—the same as the present capacity of the Hearn steam station. Just 15 years from now, 2.6 million kilowatts is looked for from nuclear sources and five years after that, it's expected to top the 4.5 million kilowatt level in capacity.

Since investigations into the provision of nuclear power began in Canada, southern Ontario has been looked upon as the area where it would be needed soonest. One estimate had it that out of ten medium to large (100,000 kw) nuclear power plants needed in Canada in the late 1960s or early 1970s, the majority would be located in southern Ontario, delivering power at an average cost of about six mills per kilowatt-hour.

Ontario Power Growth Plan

	Hydro Sources	Conventional Fuel	Nuclear Fuel
	(Million Kilowatts)		
1955	3.2	0.637	Nil
1960	4.6	1.4	0.018
1965	5.1	3.0	0.418
1970	5.3	4.2	2.6
1975	5.5	7.0	4.5
1980	5.5	10.6	7.5

Primary Power Needs

	(mill. kw.)
1955	4.2
1960	5.4- 6.2
1965	7.5- 8.5
1970	10.2-11.6
1975	14.0-16.0
1980	19.3-21.9

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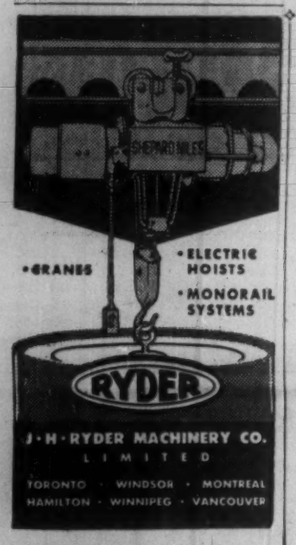

Saskatchewan...
Province of Booming Development
The rapid progress of Industrial Development in Canada's "Wheat Province" is closely allied with Electric Power.
Power Production in the Provinces Provincial System is increasing at 20% per year.
- New gas engine power plants at Swift Current and Kindersley.
- New extensions to Estevan and Saskatoon Generating Stations.
- Work on two new steam plants, costing $40,000,000 each at Estevan and Saskatoon, to meet future loads, started this year.
- Plans being made for future hydro development in the north.
- Completion of northern grid network of high tension lines and progress on southern integrated system.
- Over 32,500 farms taken on S.P.C. system since 1949—over 40,000 by end of 1956.
- Over 750 communities now served by S.P.C. system.
- Almost 800 producing oil wells now served with power.

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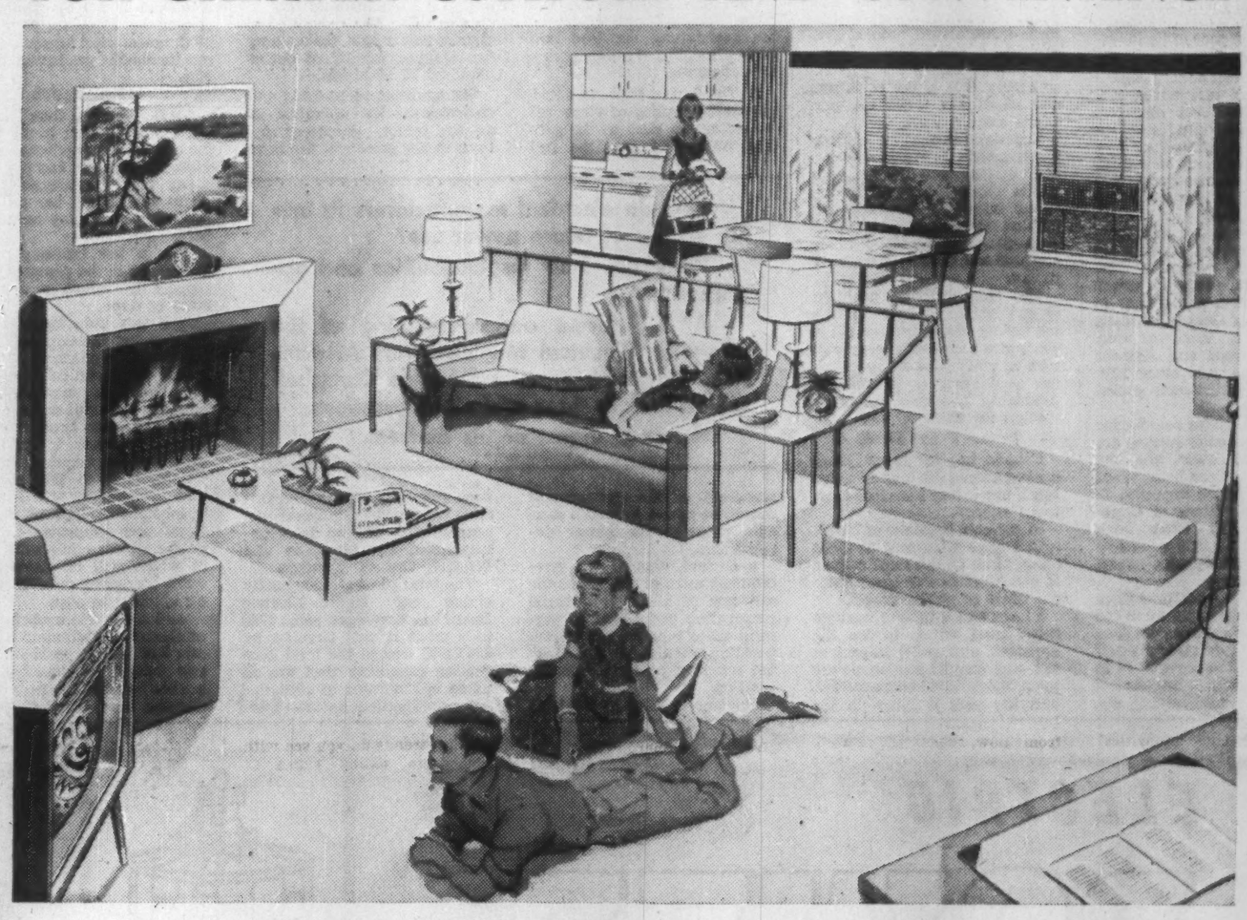
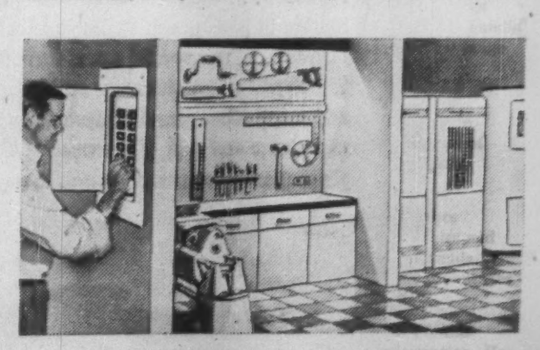

plan to LIVE BETTER . . . ELECTRICALLY
It really is like magic when you begin to live better, electrically. And today, electrical living is priced within reach of everyone. Work to a plan and sooner than you think every room in your home will become more livable, more enjoyable. For instance, your living room gains new cheerfulness and charm through the planned use of good lighting . . . and TV, radio and record-player add greatly to the family's leisure moments. Electrical living brings pleasant comfort to the bedroom, too—the soothing warmth of an electric blanket, the convenience of a wake-up-to-music clock radio, the attractiveness of well-chosen lighting. The kitchen of today is a bright, happy room where modern appliances save countless hours of time and toil.
The air in your home can now be made more enjoyable with the healthful comfort of modern air conditioning. Individual room units, or a central air conditioning unit paired with your automatic home heating equipment, keep the temperature and humidity at an even level of comfort night and day, summer and winter. The automatic furnace abolishes stoking chores forever...gives Dad more time for his workshop power tools...leaves more space for Mother's automatic laundry equipment, plus a games room for the kids.
Lights and appliances can be turned on or off by a master switch in your bedroom, hall, or any location you desire, when you install a remote-control wiring system. Modern outdoor living areas that add so much enjoyment can be equipped with weatherproof lighting and plug-in outlets to add pleasure and convenience to eating and relaxing out-of-doors.
What about the cost of living better, electrically? For new homes, many comforts and conveniences, such as adequate wiring, planned lighting, automatic heating and air conditioning can be covered by the mortgage. Your dealer offers *all* electrical appliances on convenient budget terms. Plan now to give your family all the advantages and comforts of living better, electrically.
General Electric appliances help you live better, electrically . . . save time, make work easier, provide entertainment, and add to the health and comfort of the family. Development is continually carried on to provide new and better lamp bulbs of every kind . . . to improve wiring systems, wiring devices, and other electrical equipment. As you acquire these new and finer electrical products you'll find that they make your home a more pleasant place to live in . . . that you are truly "living better," electrically.

Plan your kitchen not only for time-saving and work-saving, but for beauty, comfort, happy livability—New G-E appliances such as the wall refrigerator-freezer, built-in oven, built-in range, automatic washer and dryer offer you delightful new convenience. They are now available in charming colours to help make your kitchen one of the brightest and most pleasant rooms in your home. And how handy an electric frypan is . . . a portable mixer . . . how much hard work you can save with a floor polisher and a vacuum cleaner!

A properly wired home is your assurance of greater safety, economy and comfort . . . of better living . . . electrically. Before you buy or build, make sure the electrical system in your new home will serve your needs now and in the future. Today there are three times as many appliances as were available only a few years ago, and still more household electrical equipment is on the way to save you time and work. Provide for this now with adequate wiring . . . which will also add to the resale value of your home.
Be sure you have plenty of circuits, outlets and switches . . . heavy enough wiring. Have an electrical contractor check your present home. He can remedy any inadequacies . . . arrange convenient payment terms.
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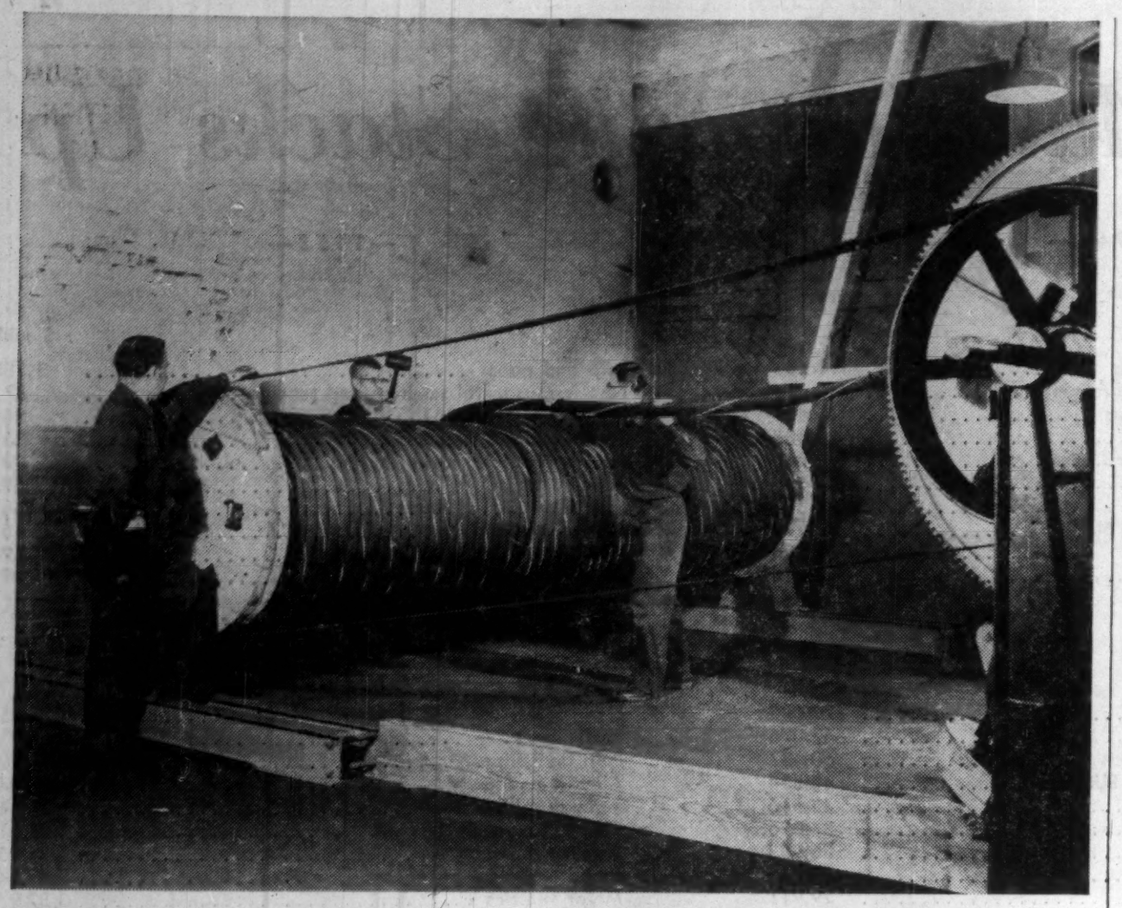

THIS CABLE was designed for an underground mine. The 4,000 volt cable was wound on a special reel, which was fastened below the mine cage and lowered into the shaft.

Your Electrical Life in '57? Answers by Man Who Knows

(Continued from page 50)

margin now available on major appliances certainly suggests that no manufacturer will willingly or knowingly overproduce to the point where excess merchandise is available. Most manufacturers' interpretation of present legislation is that of like quantity at like prices to retailers. Heavy production in this competitive business suggests that supply and demand will regulate the practices referred to in this question.

* * *

What is the sales ratio of wringer washers to automatics?

In 1956 reported sales were 85% conventional and 15% automatic. This year is running at approximately 80% conventional and 20% automatic and the expectation is that 1957 will be in the neighborhood of 75% conventional to 25% automatic.

* * *

Electronic Ranges On the Increase

Is the electronic range (cooking without heat) likely to become a regular production item with all companies? How will this affect the sale of conventional ranges?

The electronic range will eventually play an important role in the evolution of cooking. The first electronic range appeared on the Canadian market this year. It is expected that next year four or five companies will market a limited number. For the next five years at least the electronic range will replace very few conventional ranges due to its high price. Ten to 15 years from now, electronic ranges may possibly be in the same ratio to conventional ranges as automatic washers are to conventional washers today.

* * *

What types of electrical agricultural equipment have been popular sellers in the past year or two?

Includes: hay dryers, barn cleaners, conveyors of all kinds, milking machines, milk coolers, irrigation equipment, water systems, incubators, brooders, water heaters, electrically heated water bowls, feed grinders and choppers, cream separators, barn ventilators, standby generators, motors, welding equipment, animal clippers and farm shop equipment.

* * *

In view of the acute shortage of engineers it is essential that young students should be encouraged to adopt electrical engineering as a career. What steps are likely to be taken by CEMA to ensure that a sufficient number of high school students will be attracted to electrical engineering?

A number of CEMA member companies co-operate with local high-school guidance directors, provide speakers for career days, produce booklets and institutional advertisements. For many years certain companies have operated training programs and directed advertising to encourage young people to enter electrical engineering. Some electrical companies offer scholarships and bursaries to assist the student in his quest for knowledge. At least one company is now offering a five-year program to enable competent apprentices or technicians to write Professional Engineer's examinations.

CEMA has supplied articles describing the opportunities in the industry to teachers' magazines as well as giving teachers some idea as to the extent of the industry by providing short courses in such subjects as motors and controls. At the moment CEMA has no other plans in this connection.

* * *

What trends do you see with regard to selling prices of member companies as applied to electrical construction materials? Is competition keeping prices at any level? How does it affect quality?

From 1950 to 1954 the price situation on most electrical construction materials was progressively deteriorating, due to the existing competitive situation. Last year, prices started to stabilize, and early this year increased slightly due to higher material and labor costs. We are now coming into an era of greater price stabilization, but competition continues to keep suppliers' prices consistently below their published prices. Quality has not been affected since all equipment must meet CSA Standards regardless of price.

* * *

What is the present effect on the industry of electrical imports from Europe, particularly heavy equipment and cable?

The effect of foreign competition for heavy electrical apparatus and cable remains as one of the outstanding problems in 1956 for Canadian manufacturers.

Besides the loss of business, both in dollars and man-hours, foreign competition, at prices which appear to be penetration prices, has kept Canadian prices depressed far below the level one should expect, in view of the increases in labor and material costs over the last 18 months. Prices in Canada are now considerably below U. S. prices for comparable equipment.

During the last few years, Canadian manufacturers have taken big strides in reducing costs through increased productivity, reduced expense and redesign. In spite of this, the squeeze between ceiling prices, caused by foreign manufacturers, and rising labor and material costs has kept profits at such a low level that they do not represent a reasonable return on capital investment.

* * *

Color TV Sets Await Programs

Will Canadian manufacturers produce their own color TV receivers in 1957? If so, what is their probable production goal? If not, will they assemble in Canada, and what percentages of the units will be U. S. and Canadian?

It is unlikely that color TV will be produced in Canada in quantity until colored TV programs are much more generally available.

* * *

Have TV manufacturers given any thought to introducing new models at various times throughout the year instead of all at one period? This is now being done in some lines by some companies. Will it become more widespread in view of lagging TV sales of the past few months?

Most merchandising items have a definite selling season, particularly TV and radio. In past years the big demand for these items has been in the fall.

Most manufacturers have followed the policy of introducing new models in the spring as well as in the fall, in an attempt to stimulate the market in what would otherwise be a declining selling season. As far as TV is concerned, however, the fall will be the popular selling season, just as it will for Grey Cup and World Series tickets. Several things have been tried to increase demand in the first half of the year, but consumers, even at bargain prices, have not responded in mass.

* * *

What effect will "automation" have on radio and television products of Canadian manufacturers?

"Automation" has been used in varying degrees by TV manufacturers for some time, which has permitted the low pricing that has prevailed. It will continue to reduce costs, and give customers more for their money.

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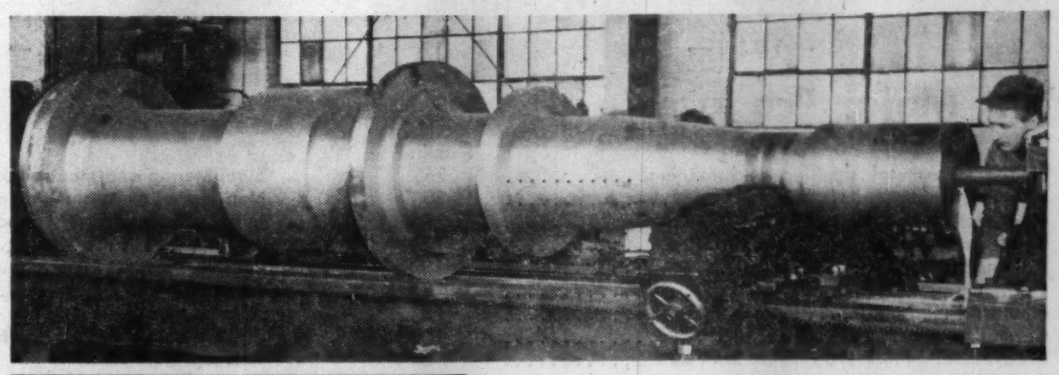

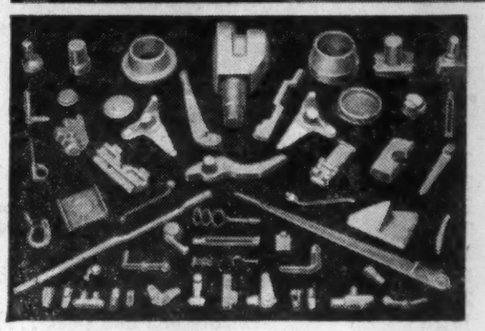

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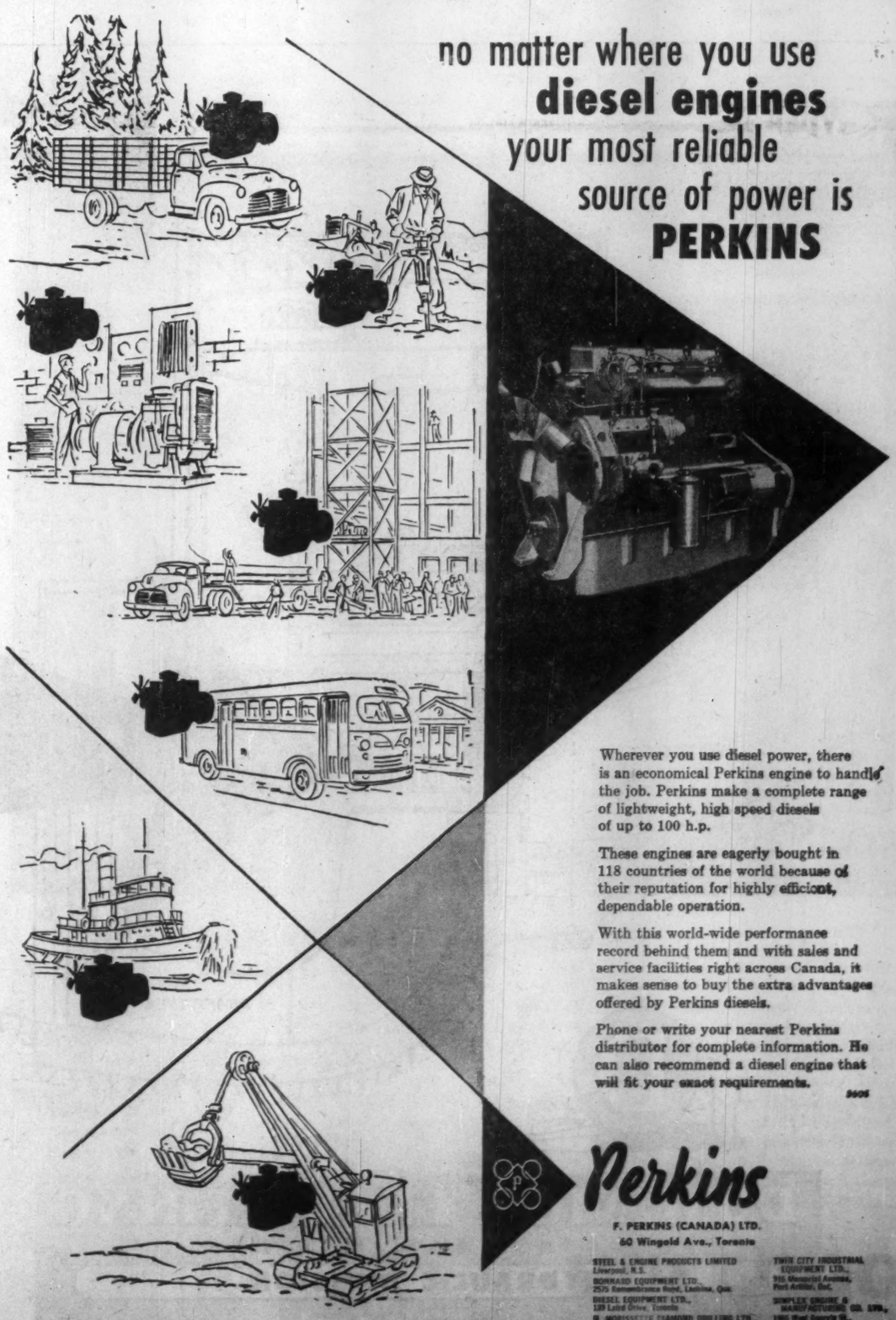

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Here's How Electrical Manufacturing Stacks Up

It's A Major Producer . . .

—1939—	$ mill.	—1944—	$ mill.	—1953—	$ mill.
Non-ferrous metal smelting and refining	263	Slaughtering and meat packing	543	Pulp and paper	1,180
Pulp and paper	208	Non-ferrous metal smelting and refining	474	Non-ferrous metal smelting and refining	871
Slaughtering and meat packing	185	Miscellaneous chemical products	431	3. **ELECTRICAL APPARATUS AND SUPPLIES**	**848**
Butter and cheese	123	Aircraft	427	Motor vehicles	836
Automobiles	107	Pulp and paper	370	Slaughtering and meat packing	829
Petroleum products	105	Shipbuilding and repairs	329	Petroleum products	695
Flour and feed mills	102	Automobiles	324	Sawmills	581
Sawmills	100	8. **ELECTRICAL APPARATUS AND SUPPLIES**	**283**	Primary iron and steel	459
9. **ELECTRICAL APPARATUS AND SUPPLIES**	**89**	Iron and steel products	256	Aircraft and parts	399
Bread and other bakery products	76	Butter and cheese	218	Butter and cheese	397

And A Leading Employer . . .

	no.		no.		no.
Sawmills	32,399	Aircraft	79,572	1. **ELECTRICAL APPARATUS AND SUPPLIES**	**76,856**
Pulp and paper	31,016	Shipbuilding and repairs	67,076	Sawmills	60,933
Bread and other bakery products	23,121	Miscellaneous chemical products	50,437	Pulp and paper	58,194
Clothing, men's factory	22,426	4. **ELECTRICAL APPARATUS AND SUPPLIES**	**48,834**	Aircraft and parts	38,048
Hosiery and knitted goods	21,312	Sawmills	43,516	Railway rolling stock	35,447
Clothing, women's factory	20,270	Pulp and paper	37,896	Clothing, men's factory	35,119
7. **ELECTRICAL APPARATUS AND SUPPLIES**	**20,261**	Iron and steel products	36,963	Primary iron and steel	34,956
Cotton yarn and cloth	19,723	Primary iron and steel	30,763	Bread and other bakery products	33,540
Printing and publishing	18.342	Railway rolling stock	29,911	Motor vehicles	32,973
Railway rolling stock	17,569	Bread and other bakery products	27,530	Furniture	29,364

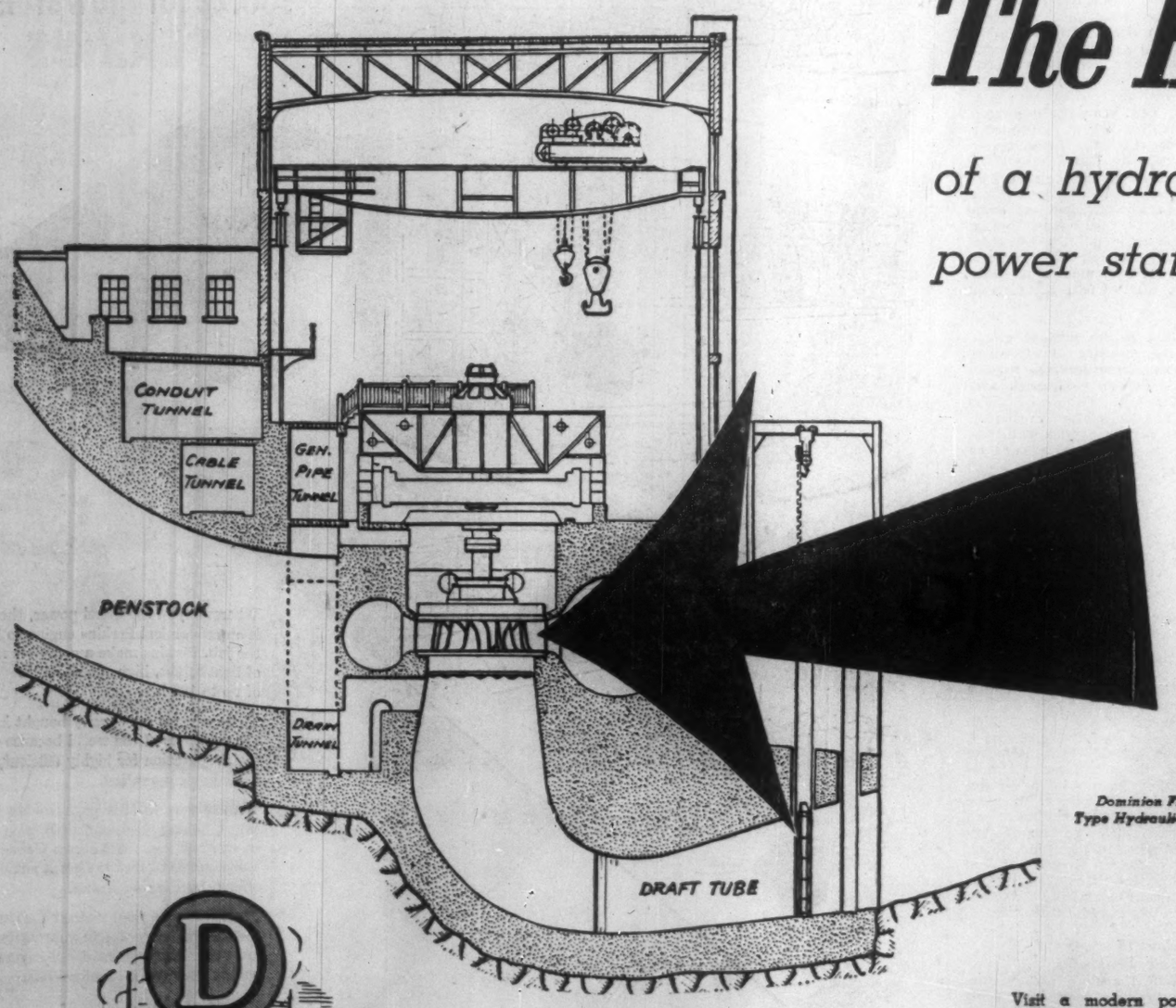
Has Industry's Biggest Paydays

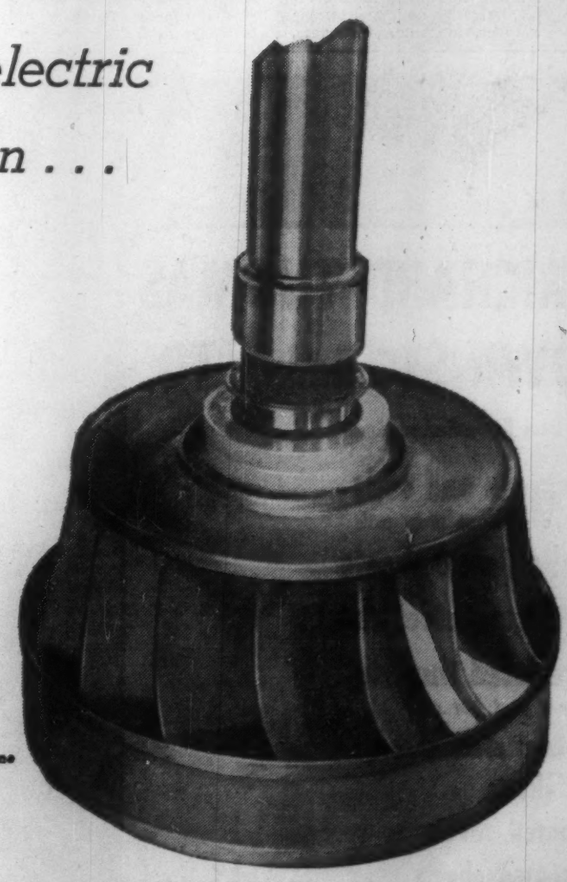
	$ mill.		$ mill.		$ mill.
Pulp and paper	44.7	Aircraft	161.0	1. **ELECTRICAL APPARATUS AND SUPPLIES**	**250.6**
Sawmills	26.3	Shipbuilding and repairs	138.9	Pulp and paper	235.7
Printing and publishing	26.2	3. **ELECTRICAL APPARATUS AND SUPPLIES**	**82.3**	Aircraft and parts	142.3
4. **ELECTRICAL APPARATUS AND SUPPLIES**	**25.7**	Miscellaneous chemical products	82.0	Sawmills	142.1
Railway rolling stock	25.0	Pulp and paper	75.8	Motor vehicles	131.3
Bread and other bakery products	22.3	Iron and steel products	75.0	Primary iron and steel	129.7
Automobiles	20.5	Railway rolling stock	61.3	Railway rolling stock	118.0
Primary iron and steel	20.4	Primary iron and steel	60.8	Non-ferrous metal smelting and refining	94.5
Clothing, men's factory	20.0	Automobiles	53.8	Printing and publishing	93.8
Non-ferrous metal smelting and refining	19.3	Sawmills	51.5	Motor vehicles parts	81.1

(This table excludes government services and government-owned industries)

The Hidden Heart

of a hydro-electric power station . . .





Dominion Francis Type Hydraulic Turbine

Visit a modern power station . . . you'll see the giant generators . . . the complicated control system . . . you'll see the result of this century's hydro-electric engineering accomplishments! But you won't see the heart of the power station . . . the huge hydraulic turbines deep in the substructure without which the pulse of power could not beat.

Dominion Engineering is proud to join in the general tribute to the Hydro Electric Power Commission of Ontario, which has purchased hydraulic turbines rated at over 3,000,000 H.P. from this company. Dominion turbines are installed in fourteen stations throughout the province. Included are twelve 105,000 H.P. turbines installed in the Sir Adam Beck Niagara Generating Station No. 2 and four under construction for this project . . . a record achievement for a Canadian company that has designed and built turbines totalling over 11 million H.P. for the world market, including better than 50% of Canada's installed hydro-electric power.

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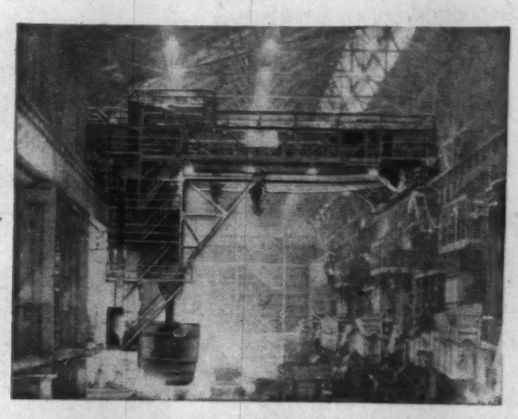
There's More Hydro On the Way

HYDRO PLANTS IN CANADA UNDER WAY OR READY FOR CONSTRUCTION

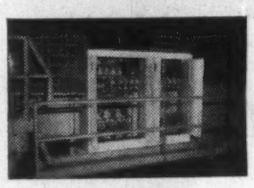
Development	Company	Year Started	Feet of Head	No of Units	Hp. Units	Present Tot. Hp.	Completed 1955	1956	1957	1958	1959
BRITISH COLUMBIA											
Puntledge	B. C. Power Commission	1953	340	1	35,000	35,000	35,000	.....	.....	.....	.....
Spillimacheen	B. C. Power Commission	1953	220	3	(2-1,250) (1-3,000)	5,500	5,500	.....	.....	.....	.....
Ladore Falls	B. C. Power Commission	1955	122	2	35,000	.....	.....	70,000	.....	.....	.....
Kemano-Kitimat	Aluminum Co. of Canada	1950	2,485	8	150,000	450,000	.....	150,000	150,000	150,000	300,000
Upper Campbell L.	B. C. Power Commission	1955	140	2	42,000	.....	.....	.....	84,000	.....	.....
Needles	B. C. Power Commission	1951	710	3	16,500	33,000	.....	16,500	.....	.....	.....
Lillooet	B. C. Electric Co. Ltd.	1948	147	1	58,500	.....	.....	58,500	.....	.....	.....
Squamish (Garibaldi)	B. C. Electric Co. Ltd.	1954	1,120	2	95,000	.....	.....	.....	190,000	.....	.....
Shawatians	Northern B. C. Power Co.	1955	218	1	2,140	2,140	2,140	.....	.....	.....	.....
TOTAL							42,640	295,000	424,000	150,000	300,000
YUKON											
McIntyre Creek	Yukon Hydro Co. Ltd.	1955	...	1	800	800	800	.....	.....	.....	.....
ALBERTA											
Pocaterra	Calgary Power Ltd.	1954	210	1	18,400	18,400	18,400	.....	.....	.....	.....
Interlakes	Calgary Power Ltd.	1954	127	1	6,900	6,900	6,900	.....	.....	.....	.....
Spray Lakes	Calgary Power Ltd.	1950	905	1	62,000	62,000	.....	.....	.....	.....	.....
Rundle	Calgary Power Ltd.	1951	320	1	23,000	23,000	.....	.....	.....	.....	.....
Cascade	Calgary Power Ltd.	1942	320	1	23,000	23,000	.....	.....	.....	.....	.....
Astoria (Jasper)	Northland Utilities Ltd.	1955	...	1	1,000	.....	.....	1,000	.....	.....	.....
TOTAL							25,300	1,000	.....	.....	.....
MANITOBA											
McArthur Falls	Manitoba Hydro El. Board	1952	20	8	10,000	80,000	40,000	.....	.....	.....	.....
ONTARIO											
Sir Adam Beck No. 2	Hyd. El. Pow. Comm. of Ont.	1952	315	12	105,000	1,260,000	525,00	.....	.....	.....	.....
Do. (Pumping Install.)	Hyd. El. Pow. Comm. of Ont.	1954	(max) 85	6	47,000	.....	.....	47,000	235,000	.....	.....
Cornwall	Hyd. El. Pow. Comm. of Ont.	1955	92	16	75,000	.....	.....	.....	.....	400,000	400,000
Manitou Falls	Hyd. El. Pow. Comm. of Ont.	1953	...	4	18,500	.....	.....	74,000	.....	.....	.....
Whitedog Falls	Hyd. El. Pow. Comm. of Ont.	1955	...	3	27,000	.....	.....	.....	81,000	.....	.....
Rainy River	The Ont. & Min. Power Co.	1910	28	9	.....	16,000	650	.....	.....	.....	.....
Sir Adam Beck No. 2	Hydro Elec. Power of Ont.	1956	315	2	100,000	.....	.....	.....	100,000	100,000	.....
TOTAL							525,650	121,000	416,000	500,000	400,000
QUEBEC											
Bersimis	Hydro-Quebec	1953	...	8	150,000	.....	.....	450,000	450,000	300,000	.....
Rapid II	Hydro-Quebec	1952	68	4	16,000	32,000	.....	16,000	.....	.....	.....
Manicouagan	Manicouagan Power Co.	1952	124	2	56,200	112,400	.....	.....	150,000	.....	.....
Trenche	The S.W. & P. Co.	1950	159	6	65,000	390,000	65,000	.....	.....	.....	.....
La Tuque	The S.W. & P. Co.	1940	114	6	(44,500-49,000)	271,500	49,000	.....	.....	.....	.....
Rapide Blanc	The S.W. & P. Co.	1934	112	6	(40,000-44,500)	244,500	44,500	.....	.....	.....	.....
Paugan Falls	Gatineau Power Co.	1928	136	8	(34,000-47,000)	285,000	.....	47,000	.....	.....	.....
Quinze Rapids	Northern Que. P. Co.	1924	90	6	(12,000-34,500)	119,000	34,500	.....	.....	.....	.....
Chicoutimi	Eastern Smelting & Ref.	1955	280	1	42,000	.....	.....	.....	42,000	.....	.....
Rapide Sans Nom	The S.W. & P. Co.	1956	125	6	55,000	.....	.....	.....	.....	140,000	140,000
TOTAL							193,000	513,000	642,000	440,000	140,000
NEW BRUNSWICK											
Beechwood	N. B. El. Power Comm.	1955	60	2	45,000	.....	.....	.....	.....	90,000	.....
NOVA SCOTIA											
Liverpool	N. S. Power Comm.	....	22	2	3,120	6,240	6,240	.....	.....	.....	.....
Bear River Sta.	N. S. Power Comm.	....	142	1	5,300	.....	.....	.....	5,300	.....	.....
TOTAL							6,240	.....	5,300	.....	.....
NEWFOUNDLAND											
Trinity	Union El. L & P. Co. Ltd.	1953	260	1	2,000	2,000	2,000	.....	.....	.....	.....
New Chelsea	United Towns El. Co.	1953	275	1	5,600	.....	.....	5,600	.....	.....	.....
Grand Falls	Anglo-Nfld. D. Co. Ltd.	1907	109	14	(1,600-32,000)	64,000	4,000	.....	.....	.....	.....
TOTAL							6,000	5,600	.....	.....	.....
GRAND TOTAL							839,630	935,600	1,487,300	1,180,000	840,000

SOURCE: Release No. 2476 — Department of Northern Affairs and National Resources — Water Power Branch — January 1956.



One of the world's largest hot metal cranes operating in a Canadian steel plant. It is equipped with C.C.L., D.C. Control.

THE AUTHORITY IN CANADA ON CRANE CONTROL



Pot Room crane in the Kitimat plant of the Aluminum Co. of Canada Ltd.

C.C.L., A.C. Fully Compensated Dynamic Braking Lowering Control, is used on cranes throughout the plant.

During the last 15 years, the majority of electric overhead travelling cranes installed in Canada, have been equipped with C.C.L. Control.

C.C.L., with the widest experience in crane control applications, offers a complete line of manual and magnetic control for A.C. and D.C. crane motors, including edgewound resistors, brakes and limit switches.

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Control circuits have been developed and patented by C.C.L. to give more accurate and smoother control of all motions.

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FIRE — CASUALTY — LIFE

Uranium Lights a Community Historic Day for Atom Power

By JOHN IRWIN

SEASCALE, Cumberland, England (Staff): Electricity made from atoms is in full flow for the first time in history.

This is regarded here as a triumph for British scientists who have beaten Americans and Russians in the race to produce commercial atomic power. It's a triumph in which Canada has a share.

Calder Hall atom station, a couple of miles north of this town perched on the bleak Cumberland coast in Northwest England, is now being heated and lit by uranium instead of coal.

Men using the plant's lunchroom are eating food cooked with atomic electricity. The vast and complex machinery at the nearby Windscale atomic energy materials and explosives factory is driven by it.

Oct. 17 is a date which will probably become as historic as the birth of flying. On that day, the Queen threw a switch to send the first atomic-produced electricity surging through transmission lines of Britain's national grid system.

Heavy Security

Calder Hall is under heavy security wraps, but at Seascale (known locally as "brain town" because of the number of scientists and top brass of the Windscale and Calder Hall atom plants living here) I talked with a scientist employed at Calder Hall.

This man, who for obvious reasons declined to be named, was one of the team which formed the first atomic pool at the National Research Council's laboratories at Montreal some 12 or 13 years ago. More recently, he has been in close liaison with Canadian scientists at Chalk River.

He told me that Calder Hall has exceeded all hopes.

Calder Hall steam power station has reactors instead of boiler furnaces as a source of power.

In general terms, the station consists of a controlled turbine house aligned with two reactor buildings (piles) at each end of the turbine house. Associated with each reactor house there are four heat exchanges. Each heat exchange contains two separate sets of steam heating equipment.

The giant reactors, which have been producing steam for more than a month, were linked with dynamos last week. Top men of this multi-million dollar project stood by as steam roared through the turbine and the dynamos began to hum. When the power rose to 10,000 kw without mishap or any escape of radioactivity, scientists knew they had made history.

Coal Displaced

"A few truck loads of uranium cartridges are doing the work of thousands of railway cars of coal," I was told.

This achievement is being compared here with the invention of the locomotive. Electricity from uranium will be at the service of plants and homes. More and more will benefit as more stations like Calder Hall are set up through Britain to produce power at the cost of the equivalent of half a cent a unit.

The pool of knowledge started in Canada in 1943 and the continuing close liaison with Canadian scientists has helped Britain take the lead in the world race to produce commercial atom power.

Details of all stages of construction of Calder Hall, its snags, bugs and final achievement will be made available to Canada.

Canada is well ahead with plans of her own at the new Chalk River plant. The success of the British project at Calder Hall should help assure success at Chalk River.

NIAGARA FALLS RIDICULED

In 1891, a scheme to utilize the power of Niagara Falls for generating electricity was publicly ridiculed.

THE FIRST MOTOR

In 1821, Michael Faraday discovered the principle of the first electric motor.

MECHANIZATION

Electrical equipment does around four fifths of all work in manufacturing.

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ENGINEERING AND CONSTRUCTION DIVISION
355 ST. JAMES ST., WEST, MONTREAL

POWER AND INDUSTRIAL DEVELOPMENTS
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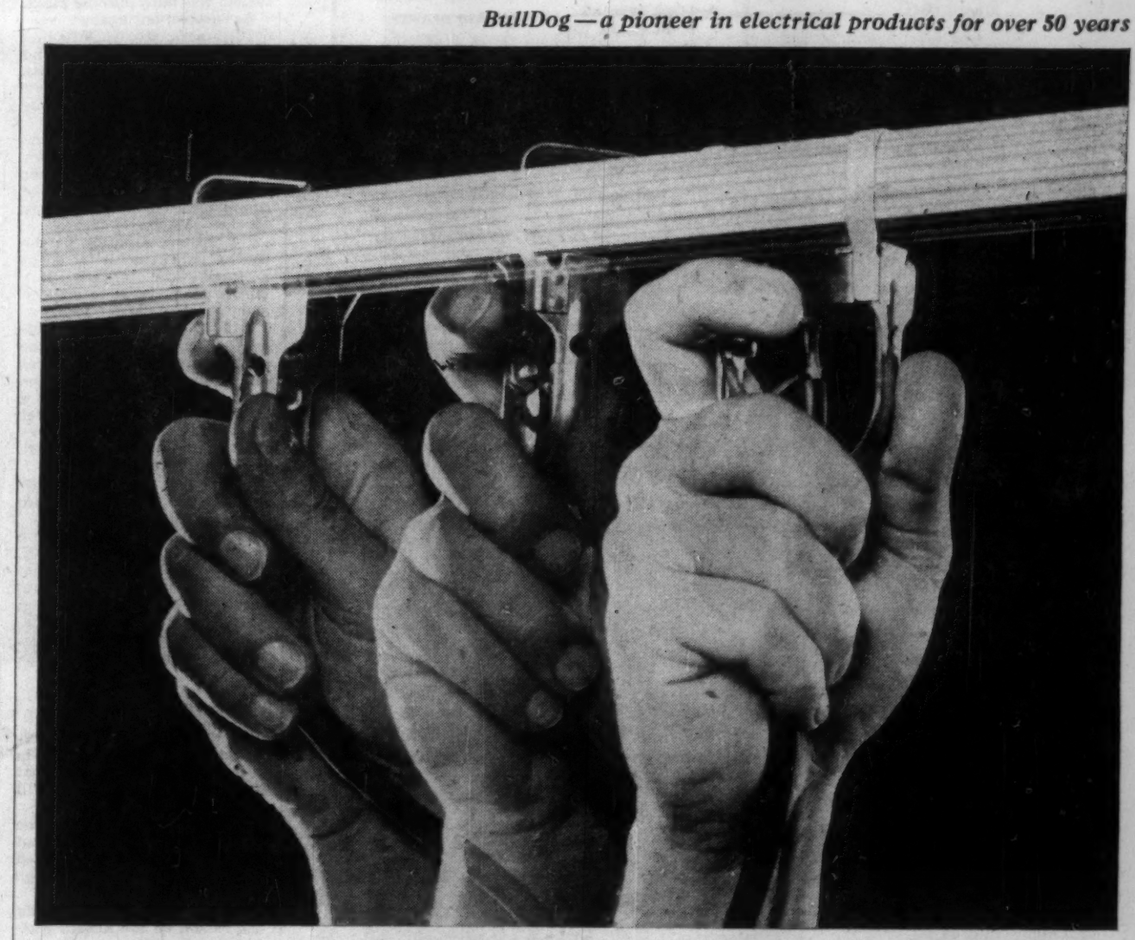
BullDog—a pioneer in electrical products for over 50 years



A neat twist—THERE'S THE CONNECTION!

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CUSTOMER'S VIEW

TELLER'S VIEW

Peek-a-boo Banking a Cinch

By GEORGE E. TOLES

The appliance has hit a handy new high, this time in business.

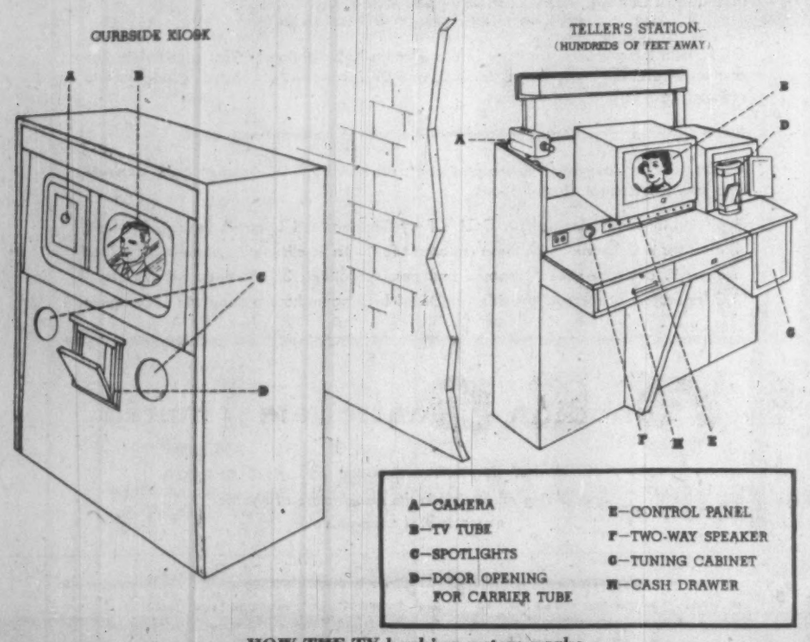
Folks in Bridgeport, Conn., can now do their banking by a combination of television and electrically controlled pneumatic tube.

A new system by which a teller at his station in the bank is able to serve a customer seated in a car 100 ft. away has been introduced by the **Mechanics and Farmers Savings Bank.**

It includes a two-way closed circuit TV by which customer and teller see and speak to each other, and pneumatic tubes through which they transfer money and papers. Underground tubes take the deposit from a curbside kiosk into the bank.

Edwin H. Mosler, Jr., president of the **Mosler Safe Co.** which created the system, says it is the only one of its kind in the world.

The "TV Snorkel," as it is known, consists of the kiosk at the curb outside the bank, and a TV camera, monitor, and control panel at the teller's station inside.



HOW THE TV banking system works.

King-Size TV

The kiosk looks like a king-size TV set. It is 63 in. high, 30 in. deep and 34 in. wide. Made of solid steel and built like a fortress, it contains a TV camera, a 17-in. monitor tube, and two spotlights. Because extreme temperatures affect electronic equipment, a heating and air conditioning system was built into the kiosk.

As protection against vandals, camera, picture tube and lights are safeguarded behind unbreakable, bullet-proof glass. There are no locks or any other protruding objects to mar the kiosk's smooth surface.

A customer driving up to the kiosk appears on the teller's picture tube, and sees the teller in the street monitor. Voice communication is by two-way speaker system.

By pushing a button on the control panel, the teller opens a small door in the kiosk which gives access to an oval stainless steel carrier unit.

After the customer places his deposit and pass book in the carrier, pressure by the teller on another button closes the door and the carrier is sucked through the tube to the teller at the rate of 31 ft. sec. Teller and customer can see each other by TV at all times.

The teller can monitor the customer's picture and be sure reception is all right.

"Remote television banking is ideal for us," said Philip S. Davison, president of the bank. "It permits us to offer drive-up service in our busy downtown area and to maintain the personal touch with our customers which we feel is very important."

One-Minute Transactions

Five car lengths are reserved at the curb for drive-in customers. It is estimated that the average transaction will take less than a minute.

A fluorescent tube over the teller's counter assures that his face will be well lighted and produce a clear image on the customer's screen.

On cloudy days, the teller can switch on the kiosk's spotlights so that the customer will be clearly visible. A "call" button which sounds a signal at the teller's station is available to the motorist if the teller is not "on camera."

Successful development of the TV Snorkel brings banking one step closer to the "bank of tomorrow." Use of the device will enable the public one day to conduct all its banking at the nearest corner immediately and in person, it is claimed.

A great advantage of this from the standpoint of both the bank and the customer is that personal service will be retained.

Another use is that banks will be able to reach out to high traffic areas such as rail terminals without going to the expense of opening a branch. Placing a kiosk in these areas will permit banks to offer complete service.

George E. Toles is a U.S. writer, residing at Hamburg, N.Y., who covers business affairs in many fields.

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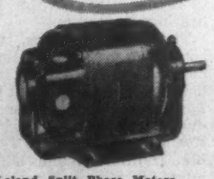

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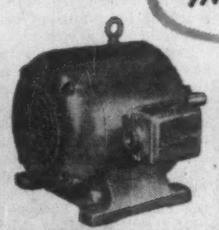

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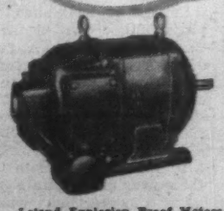
Leland Polyphase Motors
For all industrial applications. Ratings up to 5 H.P. Wide range of torques, speeds and mountings.

FOR THE OILFIELDS AND WHERE YOU BUY YOUR GAS ...



Leland Explosion Proof Motors
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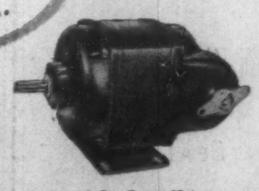

Leland Gas Pump Motors
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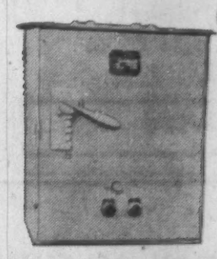
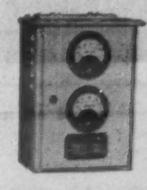
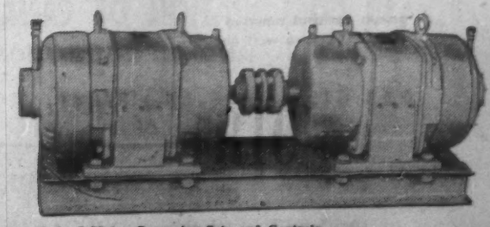
IN DEFENCE OF FREEDOM







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LELAND ELECTRIC CANADA LIMITED GUELPH

Quebec Plans 50% Hydro Boost

Quebec's hydro-electric power capacity is scheduled to increase by about 3.9 million hp or approximately 50% by the end of 1959. This growth would bring total installed power to almost 12 million hp from the present eight million.

Past records give some indication as to the rapid advance under way. For example, between 1945 and 1955, average annual increase was 213,000 hp. In the past five years: 312,000 hp.

Rated capacity this year is expected to bounce forward by 510,000 hp; 692,000 in 1957; 355,000, 1958; and a startling 2,325,000 hp in 1959. The estimated four-year growth totals 3,882,500 hp, averages a healthy 966,000 annually.

The generating capability for all Canada today is about 18 million hp. It has been estimated that the probable increase during the next five years would be in the order of six million hp to bring installed capacity to about 24 million hp. So, the rate of growth in Quebec will enable it to at least hold its present position of about 46% of total installed power capacity in this country.

Beyond the figures, the multi-million dollar expansions, and the individual company growths, some significant trends appear to be emerging.

The maximum capacity of hydro generating units, which is now just over 160,000 hp, may increase considerably. However, such installations may be limited because there aren't many undeveloped sites with sufficient potential to justify any increases in size.

New hydro generating stations of the outdoor type — with removable sections over the units — will be increasingly considered. Such sections have already been installed at Chute du Diable and Chute a la Savane Stations of **Aluminum Co. of Canada** on the Peribonka River. **Shawinigan Water & Power Co.** is installing such a unit at its new $56 million Rapide Beaumont development on the St. Maurice River.

It is thought generator voltage rating will probably continue at 13,800 volts for some time with the units totally enclosed, water cooled and relayed. Reason: So they will be isolated, shut down, and brakes applied automatically in case of failure.

ELECTRIC POWER in Canada often originates in the wilderness. This wild bushland scene in Quebec soon will be generating useful power. The X at centre indicates the future tail race of the Chute des Passes Power Development, the X at left the power house site.

Tab On Losses

Due to rising costs of power, transmission losses will be increasingly watched. The trend will continue in the use of high voltages for transmission, distribution and utilization to improve transmission efficiency. That's because of increasing loads on power systems.

In Europe, transmission voltages of 400-kv lines are successfully in operation and some manufacturers are said willing to quote on supplying equipment for 500-kv lines. Transmission voltage of 300 kv at Kemano and on **Hydro-Quebec's** Bersimis line will be exceeded on the **B.C. Electric Co.'s** new 345-kv line due to go in operation next year.

There will probably be more double circuit construction (because of increased cost of right-of-way) as the number of high-voltage transmission lines increases. This is particularly true of the more settled parts of the country.

Utility companies in Quebec, as elsewhere in Canada, are faced with the important problem of keeping pace with prospective future load growth. Here's what is being undertaken by individual companies in the province:

Quebec Hydro-Electric Commission has a program of capital expenditures for the period from Sept. 30, 1955, through 1962, of approximately $495 million. It expects to have available from operations and reserves approximately $245 million. The indicated balance is to be obtained through additional borrowing.

First generator of Bersimis No. 1 was expected to turn over this month and the remainder at intervals to 1958, when all eight units or a total of 1.2 million hp is expected to be installed. A 300,000-volt transmission line, approximately 400 miles long, is near completion and will connect this plant with the distribution system of Shawinigan Water & Power, near Quebec, and the Commission's Montreal System.

Big Job

Bersimis No. 1 has been a mammoth task. It involved the boring of a 7.6-mile concrete tunnel approximately 31 ft. in diameter; excavation of the powerhouse cavern 565 ft. long by 65 ft. wide and 80 ft. high, penstocks, tailrace chamber and a tunnel and large surge tank 365 ft. deep with a diameter of 85 ft. extending downwards by means of a concrete-lined shaft 27 ft. in diameter a further 313 ft. to meet the main tunnel; the construction of a permanent townsite at Labrieville with churches, schools, housing, etc., for an estimated population of about 150 families; roads, switch gear and transmission lines.

Quebec Hydro is also well under way with the 850,000-hp installation at Bersimis No. 2, 23 miles downstream from Bersimis No. 1. Target dates extend from October, 1959, for the first two units to January, 1961, for the last. Here's what is involved:

Plans call for a concrete dam 275 ft. high by about 2,000 ft. long, two earth-filled dykes, a diversion tunnel and a tunnel to the powerhouse. New transmission lines will link the development to the distribution facilities of the Commission's Montreal system and also with those of Shawinigan Water & Power near Quebec.

At Beauharnois, Quebec Hydro is proceeding with the extension of the powerhouse to produce an approximate addition of 700,000 hp.

In its Northwestern Quebec system, an addition of 13,500 hp at Rapide 11 was slated to come into operation this month.

Another major power development was announced this year by **Aluminium Ltd.** for a development by its principal subsidiary, Aluminum Co. of Canada on the Upper Peribonka River. It will involve installation of a million hp, or 750,000 firm hp, to support at least an additional 120,000 tons of aluminum ingot, reduce chances of a power shortage like 1955's, which affected production of ingot. Over-all development will cost $250 million.

Another power development tied to a primary aluminum production is at Baie Comeau by **Manicouagan Power Co.** The three new generators will

(Continued on page 60)

More Power for Quebec

	Project	Company	hp
*1956	Bersimis No. 1	Hydro Quebec	450,000
	Upper Ottawa	Hydro Quebec	13,500
	Gatineau	Gatineau Power Co.	47,000
			510,500
*1957	Bersimis No. 1	Hydro Quebec	450,000
	Manicouagan	Manicouagan Power Co.	150,000
	Chicoutimi	Eastern Smelting & Refining	42,000
	Shipshaw	Price Bros.	50,000
			692,000
*1958	Bersimis No. 1	Hydro Quebec	300,000
	St. Maurice River	Shawinigan Water	55,000
			355,000
*1959	St. Maurice	Shawinigan Water†	275,000
	Bersimis No. 2	Quebec Hydro‡	340,000
	Upper Peribonka	Aluminium Co. of Canada	1,000,000
	Beauharnois No. 3	Quebec Hydro	700,000
			2,325,000

*Estimated.
†Assuming remaining units come into operation in 1959.
‡First two units due October, 1959, and remaining three scheduled by January, 1961. Total new capacity at later date 850,000 hp.

FIRST IN UTILITIES EQUIPMENT

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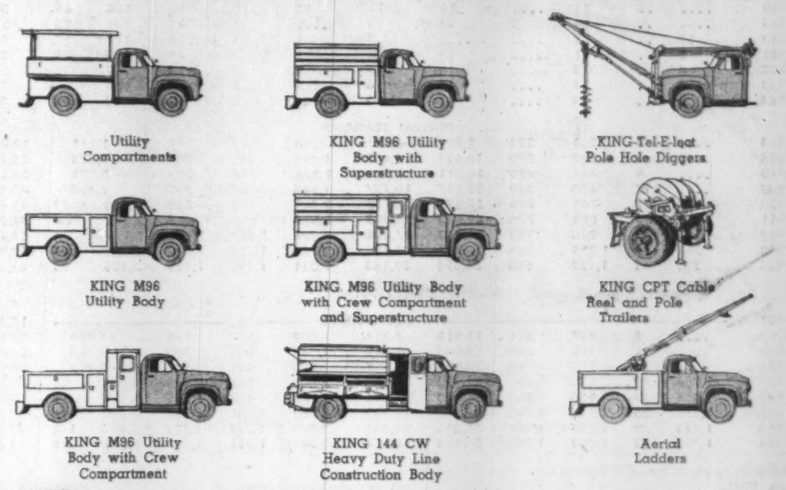

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'ENGLISH ELECTRIC'

TURBINES

for Canada's three most important Hydro projects

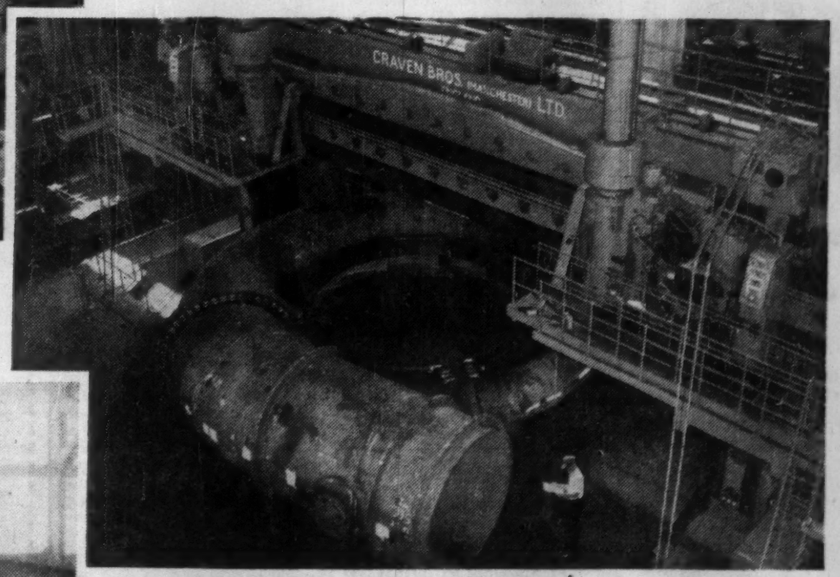
Hydraulic plants for three of the largest Hydro Electric projects ever constructed are being built in Toronto. These are the English Electric turbines for the Bersimis power project, the St. Lawrence Seaway and the Pumped Storage Development of the Sir Adam Beck Niagara scheme.

BERSIMIS — Four turbines are being built for Quebec Hydro's Bersimis Lac Casse development. Each unit will be capable of developing 175,000 HP at 277 RPM under a net head of 875 feet.

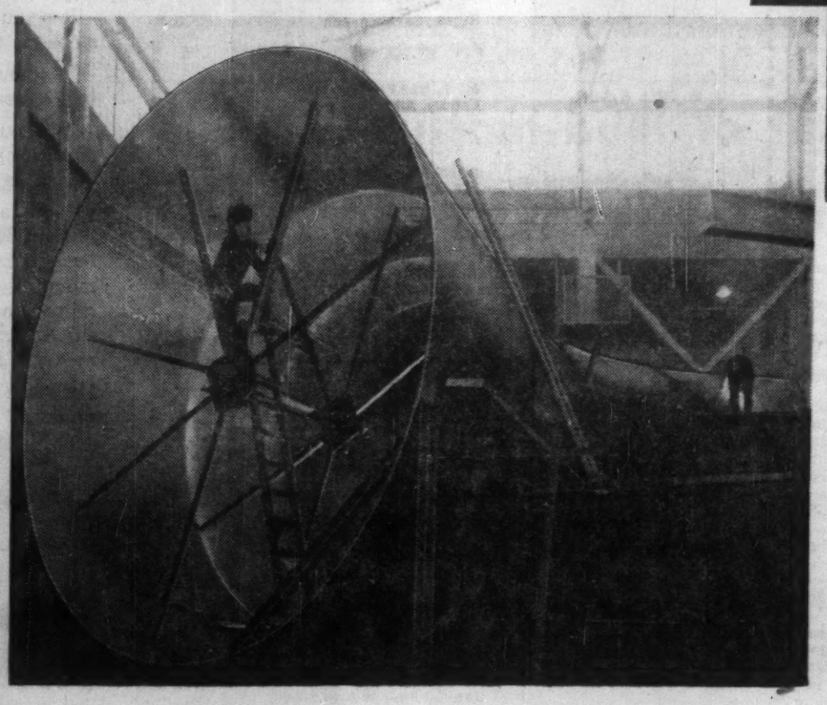
ST. LAWRENCE — Sixteen 75,000 HP fixed blade propeller units were ordered from English Electric in February 1955. The 1,200,000 HP generated by these turbines is Canada's share of the power output from this internationally important project.

NIAGARA — Six pump-turbines specially developed by English Electric for this project will pump water, otherwise spilled over Niagara during the off load night time periods, into a 65,000,000 cubic ft. reservoir near Queenston Heights, at the rate of about 10,000,000 gallons per minute. During the peak load periods the water will be released and the turbines will operate in reverse and generate power to supplement the power produced by the normal Niagara flow.

ST. LAWRENCE — *Speed ring for seaway turbines*
The first 33 ft. diameter fabricated steel speed ring assembled on the shop floor in the John Inglis plant in Toronto. It is built up in four sections and will go by special transport through the streets of Toronto to the Company's works at Scarborough for machining.



BERSIMIS — *Scroll case of the world's largest turbines*
This scroll case is being machined on the 42½ ft. boring mill at the English Electric plant at Scarborough, Ontario.



NIAGARA — *More effective use of Niagara's power*
This is a section of the first scroll case for the Niagara pump turbines during construction at our Toronto plant. Through this casing will flow over 2,000,000 gallons of water per minute.

'ENGLISH ELECTRIC'

COMPANY OF CANADA, LIMITED

Head Office: St. Catharines, Ontario

Branch Offices: Halifax, Montreal, Ottawa, Toronto, Winnipeg, Calgary Edmonton, Vancouver

56-3059

Power Output Breakdown

POWER PRODUCTION IN INDUSTRIAL, MINING AND CENTRAL STATIONS, MILLIONS OF KWH.

Year	Nfld.	P. E. I.	N. S.	N. B.	Quebec	Ontario	Man.	Sask.	Alta.	B.C.	Yukon N.W.T.	Canada
INDUSTRIES FOR OWN USE												
1930						Not available						1,380
1935	....	..	30	121	270	704	2	....	2	367	...	1,497
1940	....	..	119	179	1,016	897	3	....	6	421	...	2,641
1945	....	..	92	195	754	869	8	....	1	443	...	2,362
1950	927	..	143	336	789	1,845	6	2	11	2,208	...	6,266
1951	876	..	157	331	835	1,952	12	11	9	2,186	...	6,369
1952	954	..	167	337	799	1,920	5	....	10	2,258	...	6,451
1953	889	..	186	374	775	2,073	7	40	177	2,379	1	6,901
1954	893	..	159	365	783	2,070	8	40	51	2,635	...	7,004
MINES FOR OWN USE												
1930	....	..	64	1	1	1	2	....	12	81	13	175
1935	....	..	18	....	14	1	2	2	12	72	13	134
1940	....	..	28	....	16	11	12	16	10	164	46	303
1945	....	..	23	2	23	13	....	2	13	101	25	202
1950	11	..	25	....	....	5	1	1	19	177	25	264
1951	6	..	21	....	10	4	1	2	19	125	25	213
1952	4	..	15	....	18	15	2	2	19	135	25	235
1953	2	..	14	....	14	6	8	2	15	130	25	216
1954	6	..	14	....	21	3	22	4	8	270	50	398
CENTRAL STATIONS												
1930	....	4	223	333	8,823	6,161	960	168	204	1,218		18,094
1935	....	5	389	390	16,629	6,653	1,095	381	208	1,528		23,278
1940	....	8	444	470	16,011	8,841	1,366	556	274	2,138		30,108
1945	....	17	600	599	22,227	10,737	1,866	667	567	2,850		40,130
1950	147	29	762	696	27,323	12,719	2,449	903	869	2,535	59	48,494
1951	172	33	888	756	29,690	15,985	2,564	979	997	2,723	64	54,852
1952	233	36	965	753	32,113	17,298	2,699	1,079	1,174	2,987	72	59,409
1953	251	39	1,026	746	33,794	18,268	2,754	1,174	1,340	3,382	86	62,861
1954	280	48	1,120	900	34,098	20,143	3,011	1,292	1,498	3,486	65	65,936
GRAND TOTAL												
1930						Not available						19,649
1935	....	5	437	511	12,913	7,358	1,099	383	222	1,980		24,909
1940	....	8	591	649	17,043	9,749	1,381	572	290	2,769		33,052
1945	....	17	715	796	23,004	11,619	1,874	669	571	3,419		42,694
1950	1,085	29	930	1,032	28,112	14,569	2,456	906	899	4,920	84	55,024
1951	1,054	33	1,066	1,087	30,535	17,941	2,577	992	1,025	5,034	89	61,434
1952	1,191	36	1,147	1,090	32,930	19,233	2,706	1,081	1,203	5,380	97	66,095
1953	1,142	39	1,228	1,120	34,583	20,347	2,769	1,216	1,532	5,891	112	69,978
1954	1,179	48	1,293	1,265	34,902	22,216	3,041	1,336	1,557	6,391	115	73,338

SOURCE: Prepared from DBS figures.
July 1956.

You Spend More Power Than Any Yank, Briton

On a per capita basis, Canada is one of the world's greatest producers of electricity and its greatest consumer. Each Canadian uses 50% more than a resident of the U. S. and three times as much as a Briton.

Thus it's natural that manufacturing electrical apparatus is one of Canada's fastest-growing industries.

In 1950, according to a survey by the Maclean-Hunter Publishing Co. Research Department, there were 382 establishments in Canada employing some 60,000 people and producing $581 million worth of electrical apparatus. By the end of last year, the number of plants had grown to 460, the number of employees to 75,000 and the value of production to $1.08 billion.

Since 1949, the average yearly percentage growth of the electrical industry has been about 12% compared with 7% for all other industries. In 1953 and 1954, growth trend lines of most Canadian industries leveled off or moved downwards for varying periods; this was not true for electrical products, a reflection of the fact that electrical products are reaching an ever wider market.

The Canadian electrical manufacturing industry dates from the turn of the century.

Until World War I, the Canadian industry — consisting of only a small number of manufacturers, most of them operating on a shoestring — had an uneasy time of it because of big imports from the U. S. and Germany, where manufacturers' financial resources were great enough to permit a much greater degree of capitalization than was possible in Canada.

Bigger Investment

But the war put the Canadian industry on its feet.

Investment began to flow into electrical manufacturing; cost-slashing mass production methods were developed. Lower prices increased sales to home and industry. The public at large became conscious of the many advantages of electricity.

At the same time, manufacturing became more specialized and the different industrial functions became separated.

In the years following World War I, the industry emerged as one of the country's strongest. In 1920, there were 160 plants producing some $35 million worth of goods; nine years later, expansion and consolidation had reduced the number of plants — to 139 — but had increased the value of production, to $114 million.

In the 1930s, two factors emerged to force the industry to fight — if not for its life, at least for its place in the sun. One was the great depression, which put its heavy hand on all Canadian manufacturing industries.

The other was the growth of imports; in the last 20 years, imports have satisfied from about 14% to about 24% of the Canadian market for electrical manufactures. This pattern was established in the '30s.

The depression and growth of imports knocked some of the props from under the industry. Production, down to $37 million in 1933, didn't hit the peaks of the '20s again until the years of World War II. Here are production figures for significant years:

1944, $283 million; 1946, $234 million; 1950, $680 million; 1952, $834 million.

GATT is Important

Of prime importance to the research and expansion budgets of the electrical industry have been the commitments made by Canada as part of its accession to the General Agreement on Tariffs and Trade.

There have been two major sets of tariff reductions on electrical imports, reductions which, say Canadian manufacturers, have put certain sections of the Canadian industry temporarily in rough weather.

An example is home freezers. The effect of imports on domestic production can be seen from these figures:

	Imports	Domestic
1950	11,088	340,796
1951	109,624	277,911
1952	202,506	236,866

The industry was saved from a serious loss in over-all production in 1953 by the Canadian television boom which brought total sales of $81.3 million in that year.

What about the future of the Canadian industry? Whether or not Canadian tariffs are adjusted, the only answer seems to be "tremendous." The markets for some products in existence seem to be almost without bottom. In addition, new products are coming onto the market every month.

On the question of the so-called saturation of the appliance market, for instance, a U. S. expert says:

"Five years ago, the saturation of irons was 90%. Today it is 90%. Yet in the past five years the U. S. industry sold 35 million irons." It's no different in Canada.

No Saturation

Some Canadian manufacturers feel that the home appliance market is saturated — in the sense that sales must lag — only temporarily and occasionally. Therefore, it's probable that:

—There will be continuous development and improvement of products which consumers will buy to replace earlier models.

—There will be no easing of sales pressure in areas which once would have been considered almost saturated.

The result should be that consumption will continue to increase indefinitely; that there will be production economies and, in real terms, price decreases.

Some other factors on which future demand for electrical apparatus will be predicated are:

Growth of the Electronics Industry. Electronics, as such, is developing into an industry within an industry.

During the decade 1945-55 it grew at sizzling speed in terms of total volume produced, factory floor area, employment of workers and development of new products. Because of the auto-generative nature of the science of electronics, there is, given a long period of world stability, no visible end to the production of new and useful electronic products.

Atomic Energy. The nuclear power plant will likely use a relatively standard steam turbine, generator and allied equipment. But there will be a large market for auxiliary equipment and the electrical manufacturer will undoubtedly be a big man in getting atomic power plants functioning.

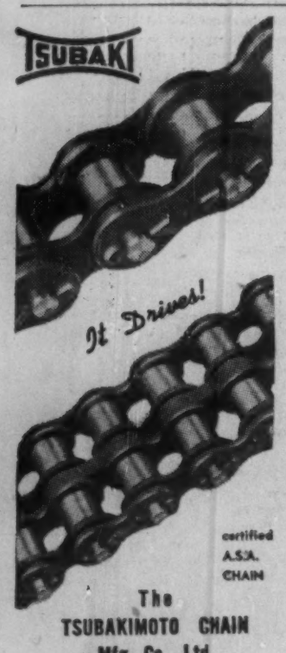
Wiring and Rural Electrification. These are two areas in which the electrical industry is in the process of expansion.

Adequate wiring means greater safety and more efficient use of appliances, electrically powered tools and motors. It also means that wiring systems will be able to sustain use of a greater number of electrical items.

Rural electrification is an obvious field for expansion. Somewhat over 60% of Canada's farms have electricity and government-industry programs in many provinces are raising this total.

Throw all factors together — new products, harder selling, import-competition worries and all the rest — and you don't get many sure-fire answers.

Except, of course, that Canadian electrical manufacturing is an industry in a hurry to keep up with an apparently insatiable demand.



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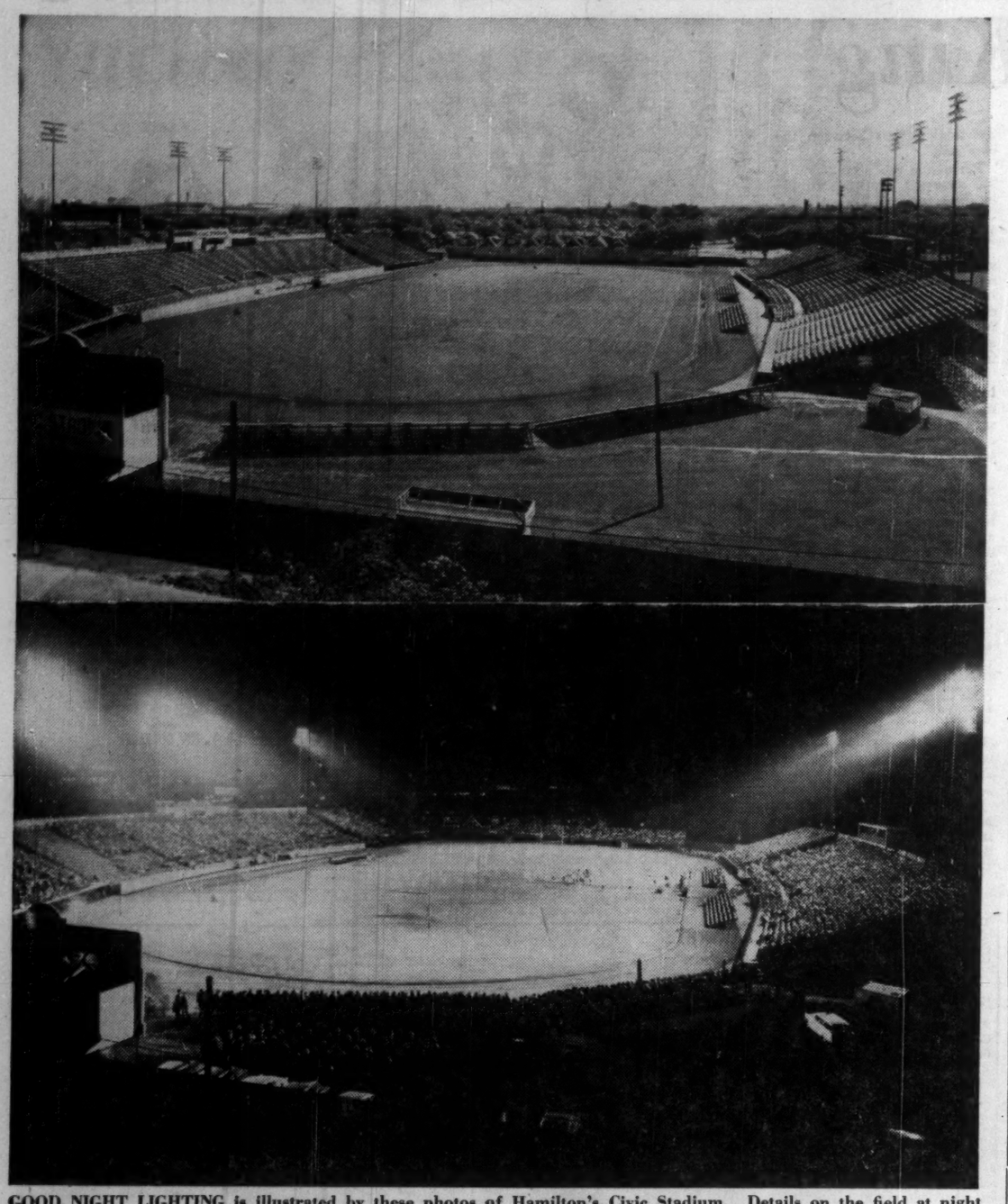


GOOD NIGHT LIGHTING is illustrated by these photos of Hamilton's Civic Stadium. Details on the field at night show up as clearly as in the daylight picture.

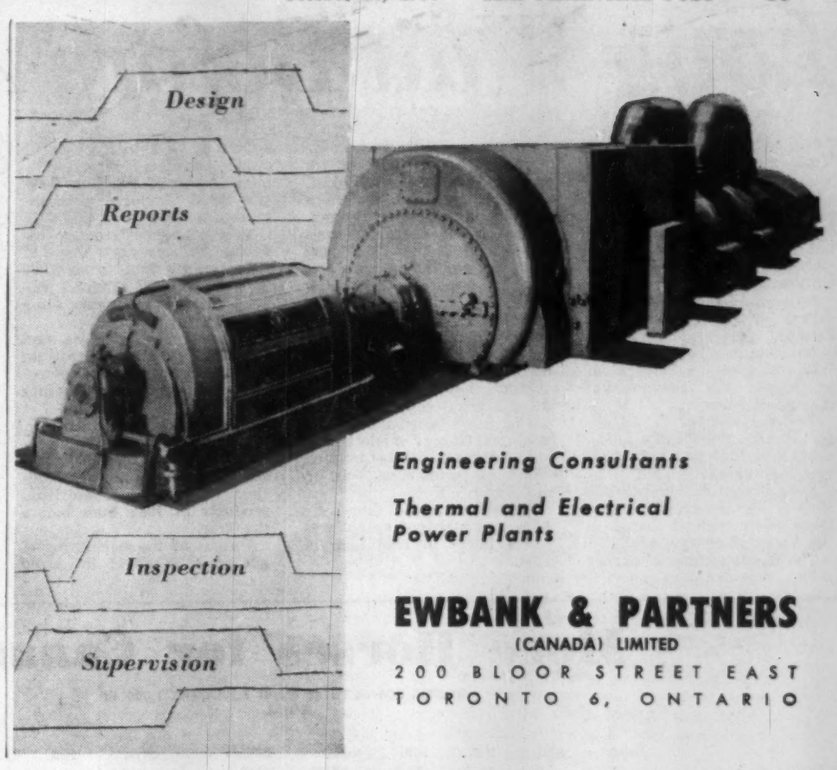
CEMA Moves To Stamp Out Poor Wiring

A long-range program that will increase the efficiency and safety of Canada's wiring systems was announced by H. M. Turner, outgoing president of the Canadian Electrical Manufacturers Association.

"As a part of the industry's aim to help the nation live better electrically, at home and at work, the program will strike a blow at the obsolete and inadequate wiring systems in three out of four buildings in Canada," Mr. Turner said.

The majority of Canadian homes do not have enough electrical outlets and circuits to operate even a small portion of the more than 70 household electrical appliances now available to the Canadian public. In addition, many revolutionary appliances will soon be coming onto the market, he said.

In an attempt to meet this serious national problem, Canada's electrical manufacturers are embarking on an educational program aimed at informing the public about the importance of adequate household wiring, and by working with both builders and electrical contractors to increase the capacity, efficiency and safety of wiring installations in both new and old houses.



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This Magic Midget Soon May Oust Tubes From Your Radio

Postwar development of the tiny electron-controller known as the transistor has made the transmission of power economically possible over short distances.

The cost of vacuum-tube operation limited the economic use of carrier transmission to distances greater than 25 miles. In time, the substitution of the transistor for the vacuum tube will allow almost universal use of carrier systems on rural and local lines as well as for long distances.

The result: lower costs, improved transmission, perhaps completely new services.

Because the transistor requires no heater or filament power and because the carriers of electric current move through a solid instead of through a vacuum, substitution of the transistor for the vacuum tube makes possible great economies of space.

The transistor can be a fifth the size of the vacuum tube it replaces. It's already made possible miniature versions of standard electronic products such as radio sets that fit in pockets and hearing aids that can be concealed in earrings and eyeglass frames.

And since development of the transistor has been going on for less than a decade, industry officials are betting that it will replace the vacuum tube in many present uses and open up other fields impractical for the vacuum tube. The transistor:

—Has a power failure incidence of only 5% in 10,000 hrs. of use, versus 15% for the vacuum tube for every thousand hrs;
—Will function with very little power, about 1/100,000 of that necessary to operate a vacuum tube;
—Needs no heat to make it operate;
—Is a far more efficient amplifying device than the vacuum tube;
—Is much less fragile.

With all these advantages, why doesn't the transistor replace the vacuum tube entirely? Because it's more expensive—perhaps $1.75 versus 75c. But research is cutting transistor cost and the betting is that transistor inroads on present uses of the vacuum tube will accelerate.

The transistor is the result of intensified research in the field of solid state physics during the years following the war. From this work, scientists W. Shockley, J. Bardeen and W. H. Brattain of **Bell Telephone** laboratories conceived the idea that amplifying properties should be obtainable from semi-conductors (substances whose conducting properties are midway between those of a good conductor like copper and a good insulator like glass). This concept was proved correct by the invention of the point-contact transistor in 1948.

Today, there are probably seven million transistors in use and perhaps 40 to 50 companies manufacturing them — top producers in the U. S. include **Raytheon Manufacturing Co., Sylvania Electric Products Inc.,** the **Radio Corporation of America,** the **General Electric Co.,** the **Minneapolis-Honeywell Regulator Co., Western Electric Co.,** the **Sperry-Rand Corp.,** the **Bendix Aviation Corp.**; in Canada, **Northern Electric Co.**

The spawning company, Bell, makes no attempt to turn out transistor for general use. Its manufacturing arms, Western Electric and Northern Electric, have made their products available to the armed forces and for their parent company's telephones and electronic switchboards.

The Way It's Made

At present, transistors are made from either of two elements, germanium (a common element obtained as a by-product of zinc refining) and silicon (a principal constituent of sand). The two elements must be concentrated and purified to a great degree; then, controlled amounts of impurities are added to change their conductivity—depending upon the impurity that is added, materials known as "N" type or "P" type are produced.

The most important widespread uses of transistors on the immediate horizon are in automobile radios and electronic computers. The automobile transistorized radio is said to be without the annoying hum often heard in vacuum tube models, a relatively new product, the power transistor, replacing the output vacuum tube in the car radio. The power transistor, as the name implies, gives more power than its older cousin.

Optimists among transistor industry officials feel that their product will replace the vacuum tube in all radios within the next four years. The transistor radio is somewhat more expensive than the vacuum tube type (U. S. prices $50 to $70 for the former, $20 to $40 for the latter, table models in each case) but it has a significantly lower operating cost. Mass production may drive down the transistor radio cost.

One field in which transistors are expected to boom during the next five years is the development of electronics control mechanisms for the home. Engineers say that the day is not far off when the housewife can open or close all windows in the house by pressing a button in the kitchen.

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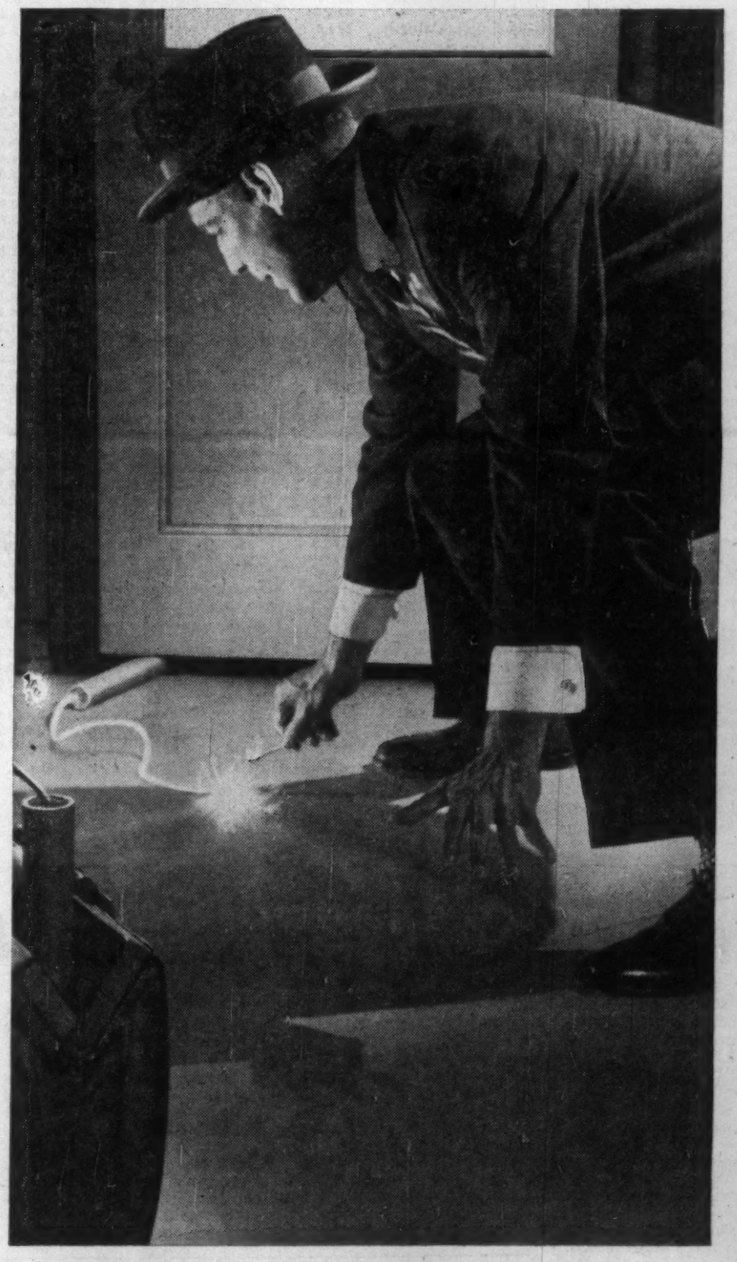

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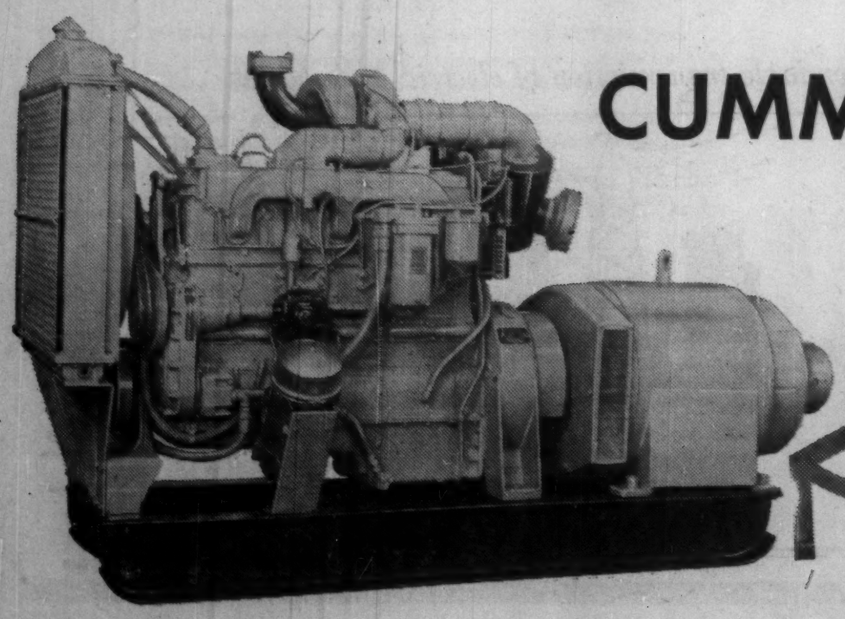

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Long Wait Before Atom 'King'

OTTAWA (Staff) — Don't throw away that coal shovel yet.

True, atom power should become a widespread source of energy within our generation. But conventional fuels and electricity will still be around for years to come.

A comprehensive historical survey of energy sources in Canada, published by DBS, makes one point clear:

It will take a mighty atom to topple the conventional sources of energy.

Two years were singled out for special DBS study—1948, when Alberta's latest oil boom was beginning, and 1952.

Even in that relatively small slice of our industrial history, there was a marked change in the kinds of energy used.

The newer sources of energy were coming into their own more and more. Oil and its products were in the forefront, but electricity and gas were also meeting a greater demand.

The use of energy sources between 1948 and 1952 grew with our population rise. But by 1952, energy was being more effectively used—that is, there was less waste heat going up the chimney in relation to the heat coming out of the furnace.

Production data for 1948-52 show a rapid rise in the output of crude petroleum and its products. Output of electricity also increased substantially, while gas production was up moderately.

Production of coal dipped by 4.7%, and fuelwood output was 15.7% lower in 1952 than in 1948.

Canadian production of crude petroleum was multiplied five-fold between 1948 and 1952. Imports also increased a little.

This enabled Canadian refineries to boost their input of crude oil by 58%, from 3,092 to 4,885 million gallons. Related increases during the same period:

Production of gasoline and naphtha, 66.3%; petroleum coke, 132.6%; liquefied petroleum gases, 244.2%; other petroleum fuels, 68.2%.

But despite these increases, the demands of a growing economy were so great that Canada was actually less self-sufficient in the major petroleum products in 1952 than before the War.

Output of the two forms of gas grew at about the same rate. Wells produced 13.3% more natural gas in 1952 than in 1948, while Canadian plants increased their output of manufactured gas by 13.8%.

In electricity, as in gas, Canada was self-sufficient in 1952. Production of electricity in 1952 was great enough to allow an export equivalent to 3.8% of output, although Canadian requirements of electricity had risen by 39.5% between 1948 and 1952.

Petroleum's Role

The new role of petroleum is emphasized in a comparison of the mineral fuels (coal, crude petroleum, and natural gas) in the two years.

Crude petroleum accounted for only 11.3% of production of mineral fuels in 1948, but 39.8% in 1952. Coal's share dipped from 74.3% to 48.8% of the total output between the two years.

Petroleum made up 28.8% of the apparent available supply in 1948, and 41.3% in 1952. Coal declined from 66.3% to 53.8% of supply.

Another tendency was toward greater processing of mineral fuels. Manufactured fuels — those which undergo chemical change — accounted for 35.3% of 1948 consumption, and 49.1% of 1952 measured use.

"The change in balance between manufactured and unmanufactured mineral fuels," says DBS, "was due to the change in emphasis between coal and petroleum."

Here's a comparison of production and apparent available supply of fuels and electricity in Canada in 1952, expressed as a percentage of 1948's production and supply:

	1952 Prod'n (1948=100)	1952 Supply (1948=100)
Coal	95.3	89.7
Coal briquettes	199.6	132.9
Crude petroleum	503.1	157.2
Natural gas	113.3	110.2
Manufactured gas	113.8	113.8
Coke	102.8	99.1
Petroleum coke	232.6	138.3
Gasoline & naphtha	166.3	155.2
Liq. petroleum gases	344.2	196.2
Other petroleum fuels	168.2	180.9
Fuelwood	84.3	84.4
Electricity	139.9	139.5

460 ELECTRICAL MANUFACTURERS

Some 460 companies in Canada's electrical manufacturing industry are capable of producing practically all of Canada's electrical requirements.

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ELECTRIC POWER TOTAL PLANT EQUIPMENT 1,000 HP
TOTAL

	Nfld.	P.E.I.	N.S.	N.B.	Quebec	Ontario	Man.	Sask.	Alta.	B.C.	Yukon N.W.T.	Canada
1920	....	3.7	59.2	33.7	991.9	1,122.4	103.8	41.8	82.3	342.7	13.4	2,795.1
1925	....	4.1	86.4	56.5	1,783.2	1,872.2	215.7	64.3	96.1	474.8	13.4	4,664.9
1930	....	5.9	154.0	157.0	2,754.5	2,129.3	347.0	160.4	150.4	694.1		6,553.5
1935	....	7.6	181.7	163.8	3,889.0	2,603.9	429.2	180.2	153.5	790.5		8,412.1
1940	....	10.7	217.9	169.9	4,360.3	2,640.7	456.3	256.2	169.6	865.2		9,148.1
1945	....	11.6	232.3	178.7	5,889.0	2,715.9	444.5	260.1	226.8	948.3		10,907.3
1946	....	11.6	233.4	179.9	5,889.0	2,722.3	468.8	261.1	229.3	949.4		10,934.9
1947	....	11.6	233.4	196.0	5,922.4	2,796.1	480.0	266.9	232.7	1,005.8		11,145.0
1948	....	12.7	240.9	223.0	5,983.9	2,988.5	522.1	298.0	242.8	1,079.2	28.9	11,620.0
1949	263.3	12.7	265.5	224.4	6,177.0	3,050.7	575.9	316.5	297.7	1,311.7	29.3	12,524.7
1950	264.0	13.7	271.6	224.5	6,418.8	3,692.1	613.4	318.3	299.5	1,363.1	30.1	13,509.2
1951	281.4	23.9	338.8	232.1	6,801.7	4,074.0	614.6	369.2	277.2	1,444.2	30.1	14,586.1
1952	295.9	23.7	359.7	248.0	7,316.2	4,632.6	735.0	433.2	388.0	1,511.4	33.2	15,976.9
1953	318.1	23.0	381.8	299.7	7,773.9	5,027.8	754.2	464.4	500.4	1,599.3	34.1	17,166.7
1954	330.3	23.1	415.0	295.9	7,830.6	5,838.8	794.1	480.0	565.0	2,337.1	34.4	18,944.3
1955*	361.5	26.1	504.0	305.1	8,033.8	6,361.2	858.6	498.8	648.0	2,408.5	34.9	20,404.4
1956*	368.2	33.6	517.0	333.1	8,559.8	6,461.2	858.6	592.8	776.8	2,802.5	34.9	21,338.5
1957*	370.9	34.0	608.0	430.1	8,920.4	7,066.2	938.9	659.8	864.0	3,309.5	34.9	23,236.7
1958*	401.7	34.0	634.0	488.1	9,567.4	8,263.2	1,019.9	825.8	939.0	3,726.5	49.7	25,949.3
1959*	401.7	34.0	729.0	547.1	10,217.4	8,308.2	1,109.9	825.8	1,029.0	4,114.5	49.7	27,366.3
HYDRAULIC (a)												
1920	....	2.2	27.6	22.0	955.1	1,057.4	85.3	....	33.1	309.5	13.2	2,515.6
1925	....	2.3	65.5	44.3	1,750.0	1,802.6	183.9	....	34.5	443.8	13.2	4,338.3
1930	....	2.4	114.2	133.7	2,718.1	2,088.1	311.9	42.0	70.6	630.8	13.2	6,125.0
1935	....	2.4	116.7	133.7	3,853.3	2,560.2	392.8	42.0	71.6	718.5	18.2	7,909.1
1940	....	2.6	138.2	133.3	4,320.9	2,597.6	420.9	90.8	72.0	788.8	18.2	8,584.4
1945	....	2.6	133.4	133.3	5,848.6	2,673.3	422.8	90.8	95.0	864.0	19.7	10,283.6
1946	....	2.6	133.4	133.3	5,848.6	2,679.7	446.8	90.8	93.1	864.0	19.7	10,312.1
1947	....	2.6	133.4	133.3	5,878.9	2,749.7	458.8	90.8	106.6	917.0	19.7	10,490.9
1948	....	2.6	140.9	133.3	5,939.7	2,894.2	503.7	111.8	106.6	1,009.8	28.1	10,870.7
1949	262.1	2.6	145.4	133.3	6,131.6	2,896.5	557.7	111.8	107.2	1,238.1	28.5	11,614.8
1950	262.8	2.3	151.0	133.1	6,372.8	3,513.8	595.2	111.8	107.2	1,284.2	28.5	12,562.8
1951	279.2	2.3	151.0	132.9	6,755.4	3,718.5	596.4	111.8	207.8	1,358.8	28.5	13,342.5
1952	292.7	2.3	162.5	135.5	7,263.6	3,948.5	716.9	111.8	207.8	1,432.9	31.5	14,305.9
1953	311.2	1.9	162.4	164.1	7,719.1	4,006.7	716.9	109.8	208.0	1,496.5	32.4	14,929.1
1954	323.2	1.9	170.9	164.1	7,773.8	4,845.5	756.9	109.8	258.7	2,246.9	32.4	16,684.1
1955	329.2	1.9	177.0	164.1	7,975.7	5,367.9	796.9	109.8	284.0	2,271.5	33.2	17,511.1
1956*	335.9	....	190.0	164.1	8,501.7	5,467.9	796.9	109.8	284.0	2,653.5	33.2	18,537.0
1957*	338.6	....	190.0	254.1	8,859.7	6,072.9	796.9	109.8	306.8	3,101.5	33.2	20,063.5
1958*	369.4	....	216.0	254.1	9,506.7	6,982.9	796.9	109.8	306.8	3,419.5	48.0	22,010.1
1959*	369.4	....	216.0	254.1	10,156.7	7,027.9	796.9	109.8	396.8	3,803.5	48.0	23,179.1
THERMAL (b)												
1920	....	1.5	21.6	11.7	36.8	65.0	18.5	41.8	49.2	33.2	0.2	279.5
1925	....	1.8	20.9	12.2	33.2	69.6	31.8	64.3	61.6	31.0	0.2	326.6
1930	....	3.5	39.8	23.3	36.4	41.2	36.0	118.4	79.8	50.1		428.5
1935	....	5.2	75.0	30.1	38.7	43.7	36.4	138.2	81.9	53.8		503.0
1940	....	8.1	79.9	36.6	39.4	43.1	35.4	165.4	97.6	58.2		563.7
1945	....	9.0	98.9	45.4	40.4	42.6	21.7	169.3	131.8	64.6		623.7
1946	....	9.0	100.0	46.6	40.4	42.6	22.0	170.3	136.2	65.7		622.8
1947	....	9.0	100.0	62.7	43.5	46.4	21.2	176.1	126.1	69.1		654.1
1948	....	10.1	100.0	89.7	44.2	94.3	18.4	186.2	136.2	69.4	0.8	749.3
1949	1.2	10.1	120.1	91.1	45.4	154.2	18.2	204.7	190.5	73.6	0.8	909.9
1950	1.2	11.4	120.6	91.4	46.0	178.3	18.2	206.5	192.3	78.9	1.6	946.4
1951	1.2	21.6	187.8	99.2	46.3	355.5	18.2	257.4	169.4	85.4	1.6	1,243.6
1952	3.2	21.4	197.2	112.5	52.6	684.1	18.1	321.4	180.2	78.5	1.7	1,671.0
1953	6.9	21.1	219.4	135.6	54.8	1,021.1	37.3	354.6	292.4	102.8	1.7	2,237.6
1954	7.1	21.2	244.1	131.8	56.8	993.3	37.2	370.2	306.3	90.2	2.0	2,260.2
1955*	32.3	24.2	327.0	141.0	58.1	993.3	61.7	389.0	364.0	137.0	1.7	2,529.3
1956*	32.3	33.6	327.0	169.0	58.1	993.3	61.7	483.0	492.8	149.0	1.7	2,801.5
1957*	32.3	34.0	418.0	176.0	60.7	993.3	142.0	550.0	557.2	208.0	1.7	3,173.2
1958*	32.3	34.0	478.0	234.0	60.7	1,280.3	223.0	716.0	632.2	307.0	1.7	3,939.2
1959*	32.3	34.0	513.0	293.0	60.7	1,280.3	313.0	716.0	632.2	311.0	1.7	4,187.2

SOURCE: (a) Department of Northern Affairs and Natural Resources.
(b) Dominion Bureau of Statistics "Central Electric Stations."
*Estimated from Second annual Electric Survey of Capacity and Load and Other Publications.
June, 1956.

Quebec Plans 50% Hydro Boost

(Continued from page 57)

increase power capacity at the existing plant by 150,000 hp. The new power is expected to be available by 1957, will support the first 80,000 tons of ingot to be available for production during 1958. The aluminum project is a joint growth of **British Aluminium Ltd.** and **Quebec North Shore Paper Co.**

Tied to its pulp and paper operation, **Price Bros.** is under way with a power project of an additional 50,000 hp (by 1957) at Willison Falls on the Shipshaw River. The company owns and operates waterpower plants with installed capacity of 150,200 hp, chiefly along the Shipshaw River.

Linked to copper smelting plans, the power subsidiary of **Eastern Smelting & Refining** expects to have a 42,000 hp power installation in 1957.

Gatineau Power Co. this year brought into operation 47,000 hp generating unit in the Paugan Falls plant. The company owns and operates 17 generating plants with a total installed capacity of 767,634 hp, of which 80,000 hp is in New Brunswick.

Meanwhile, **Shawinigan Water & Power** is pushing ahead with its 330,000 hp Rapide Beaumont development on the St. Maurice River. A modern construction camp has been set up to accommodate some 800 men, contains hospital, offices, workshop and dining hall. The labor force is expected to reach a maximum of 2,000 over the next two years, when the first of six generating units are scheduled to come into operation.

There are 12 producers in Quebec with installations of more than 50,000 hp. Of the 16 plants of more than 150,000 hp, Beauharnois has 1,408,000 hp, Shipshaw 1,200,000 hp and Isle Maligne 540,000 hp. Of the remaining 13 plants, seven are on the St. Maurice River, three in the Saguenay Basin, two in the Ottawa Basin and one on the St. Lawrence.

Quebec owes its waterpower wealth to several reasons but chiefly:

—The Canadian Shield with its innumerable waterfalls.

—A high and exceptionally stable yearly and monthly precipitation.

—Large bodies of fresh water.

For the future, Quebec has large untapped sources of power. Its waterpower potential at ordinary six-month flow, amounts to 20.4 million hp and, on the basis of actual installation averaging 130% of six-month flow power, to 26.6 million hp.

Lachine Power

The Lachine power development continues to be studied, even more attentively since the decision to proceed with regulation of the St. Lawrence in its International section.

Actual plans are said to centre on a two-stage development:

One at the foot of Lachine Rapids with a 30-ft. head and the other below Victoria Bridge with a 20-ft. head.

Major stumbling block is said to have been recession of downstream waters, which might even flood the second dam under certain winter conditions. Deeper channels and proper ice-breaking operations could end this situation.

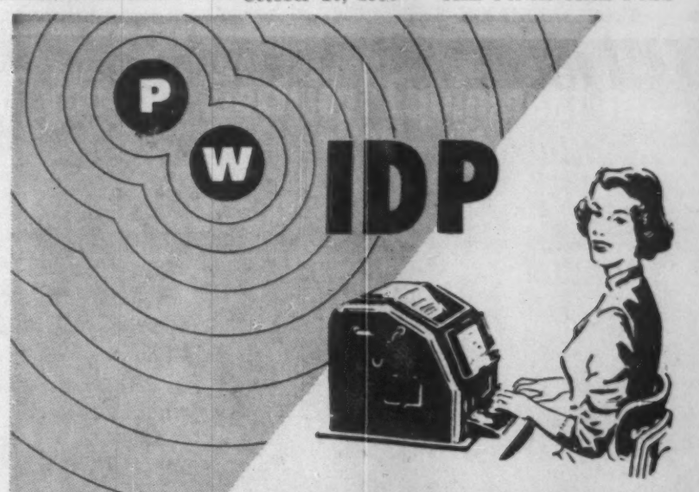
Concentration of the full head would have had to bear the ill effect of the downstream winter rise, and would have meant building of dykes on both sides of the river. These dykes would have extended from the foot of the Lachine Rapids to below Victoria Bridge — approximately eight miles.

With the two-stage development, the same dykes will be at only elevation 55 (instead of 80) at the most. This will mean a big financial saving.

It now looks like Quebec Hydro will be in a position to start construction when demand for power is required.

Elsewhere on the north shore of the St. Lawrence is the big potential of rivers like the Manicouagan.

With power the key to industry, and industry growing at a rapid rate in the province, it shouldn't be long before other major new power developments are announced.



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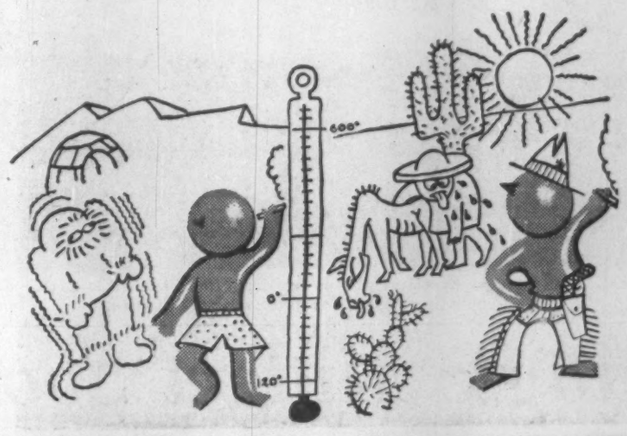

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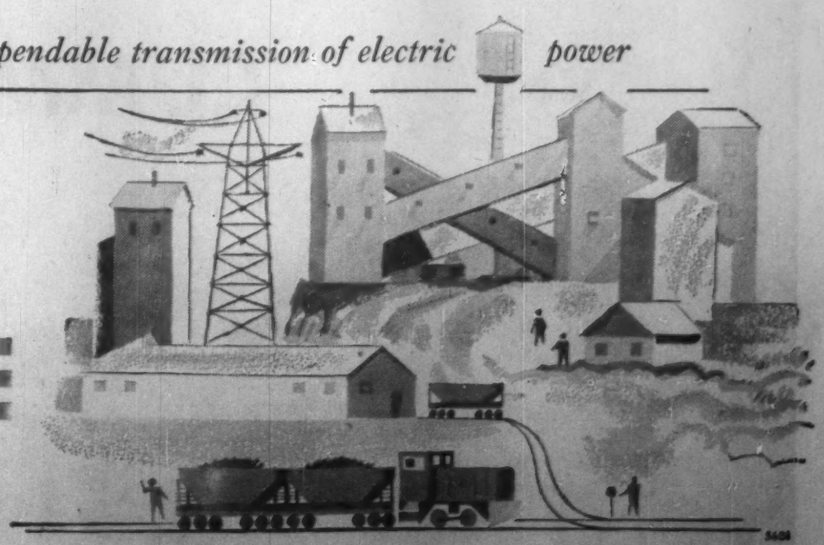

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Nuclear Power Will Come Soon

The four-year, $15-million project to give Canada its first nuclear power plant is on schedule.

The site at Des Joachims, Ont. has been broken, design is well advanced and orders have been placed for some major components.

Here is a digest of a report to the special committee on research which was made recently at Chalk River by Mr. I. F. McRae, vice-president in charge of the Civilian Atomic Power Department of CGE, prime contractor on the project.

By I. F. McRAE

In 1954 a nuclear power group was organized at Chalk River for the purpose of preparing a preliminary design of a small nuclear power plant.

This group was recruited from electric utilities and engineering firms across Canada, was backed up with the services of nuclear scientists on the staff of Atomic Energy of Canada Ltd. The group completed its study in April, 1955, and presented a report known officially as NPG-5.

AECL scientists and engineers had developed most of the nuclear background for such a plant through their work with the various research reactors at Chalk River. It was felt they should continue this fundamental and applied research and leave the development of commercial nuclear power to industry.

In keeping with this policy, various manufacturers were invited to quote on the development, design and construction of this first nuclear plant known as Nuclear Power Demonstration, on a competitive basis. Canadian General Electric Co. was one of a half-dozen firms bidding for this contract.

Starting last spring, CGE set up a Civilian Atomic Power Department to which it assigned some of its outstanding engineers and administrators. In addition, AECL made available a number of key engineering personnel with substantial nuclear background.

This select team has been augmented with technicians and draftsmen, is now engaged in the detailed design of the 20,000 kw. nuclear electric power plant. Aside from its contribution of a carefully selected engineering staff, CGE is contributing up to $2 million toward the engineering design and development costs.

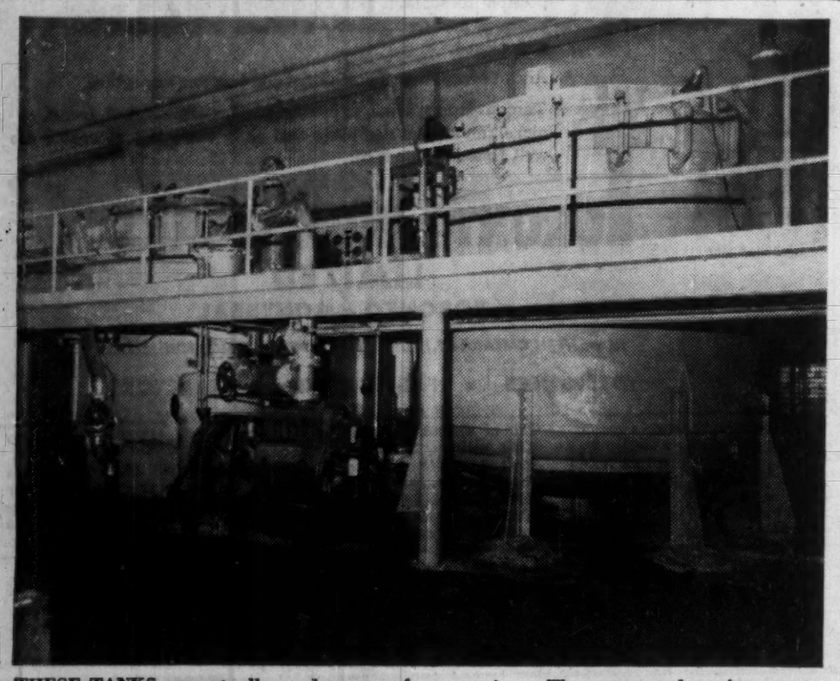
New Laboratory

A development laboratory for specialized reactor work is now under construction in Peterborough Works, occupying part of the building housing the Civilian Atomic Power Department.

This laboratory will determine the operating characteristics of a large number of the reactor components under simulated reactor conditions of temperature, pressure and water quality. The work will include the heat transfer, hydraulic and mechanical performance of the fuel rods. Actual performance of fuel elements under irradiation will be carried out in the research reactors at Chalk River.

The NPD power plant will consist of a heavy water reactor delivering heat to a steam generator to operate a conventional turbo-generator set.

The reactor will use natural uranium fuel and will have many features in common with the NRX and NRU reactors at Chalk River. However, it differs from them fundamentally in other respects. The relatively high operating pressures adopted for efficient power generation require that the reactor be housed in a heavy pressure shell. The absence of experimental facilities permits the reactor to be located underground and completely changes its appearance.



THESE TANKS are actually used to manufacture wire. They are used to impregnate mineral insulated non-draining cable, a special cable used to cope with problems of vertical drops and steep gradients.

Because the costs will be used in estimating the costs of power from future large reactors, every effort consistent with the production of a single unit is being made to keep down capital cost.

A steel pressure vessel 11½ ft. in diameter and about 30 ft. high will house the reacting core, the coolant headers and associated parts. In an emergency shut-down, the heavy water moderator falls into a space in the lower end of the vessel.

The core will be arranged much like that of the NRX reactor except there will be only a little over 100 fuel rod assemblies. There is no aluminum calandria. Each fuel assembly will consist of 19 zirconium tubes filled with sintered uranium oxide pellets.

Sintered oxide has the great advantage over metal that it does not react with hot water or steam, and minor flaws in the sheath will not result in disintegration of the fuel element.

Enriched Fuels

Consideration will be given to the eventual use of thorium oxide fuel elements enriched with U235 or plutonium to determine the possibility of breeding U233 in this type of reactor. Greatly extended radiation times could result. The NPD reactor will provide excellent facilities for proving statistically new materials and designs of fuel rods.

A wall with removable panels separates the reactor hall from the turbine room so that two 25-ton cranes can be used together during construction and major maintenance operations, but all radioactive components will remain on one side of it.

The vaults containing the reactor, the main and moderator coolant pumps, the steam generator, and the rod-changing room will be inaccessible while the reactor is operating, but the turbine and condenser rooms will have normal access at all times. These vaults also form secondary containment shells in case of radioactive leakage, and make maximum use of bed rock for shielding purposes.

After careful consideration of a number of alternative sites, one was selected near the Des Joachims Generating Station of the Hydro Electric Power Commission of Ontario. It's convenient to the village of Rolphton and Hydro maintenance facilities, to the Chalk River staff, to active waste disposal areas, and other special facilities required for a plant of this type. The site provides a solid rock foundation, ample cooling water, simple connection to the Hydro system, with reliable station power supplies and adequate isolation.

Orders Placed

A staff of 85 physicists, engineers, technicians, draftsmen and other specialists is now well advanced in the design of the reactor in Peterborough.

Orders have been placed for some of the major components. The layout of the building has been agreed upon with the architectural group of Ontario Hydro, steel for the building has been ordered. We hope to be able to start work at the plant site early this fall.

A high pressure experimental setup is now operating in Peterborough to check the hydraulic and corrosion characteristics of the fuel elements. Prototype fuel elements will be irradiated in the NRX reactor late this year. Completion of the plant is scheduled for mid-1959.

It is needless for me to point out that the economic welfare of any country — its standard of life — depends on its supply of energy. Canada's present position with its standard of living second only to that of the U. S., has been founded on an abundant supply of low-cost hydro power.

We are nearing the end of our hydro resources in some parts of the country and, with greatly increasing demand for electric energy throughout Canada, it's essential that we do not lag in development of man's greatest energy resource — nuclear power.

Before the end of next year, Canada will lead the world in the production of uranium. The reactor I have just described will use natural Canadian uranium. It is obvious, therefore, that the success of this nuclear power demonstration project will have an important and direct bearing, not only on our electric utilities and in industries dependent on them for power — it will also be of major importance to our mining industry.

Nuclear power cannot compete today with either hydro or fossil-fueled plants. The tremendous resources of engineering knowlegde focused on nuclear power development, however, will doubtless solve the many present difficulties and the day will not be far off when units of 100,000 kw and larger will compete with conventional thermal plants in Canada.

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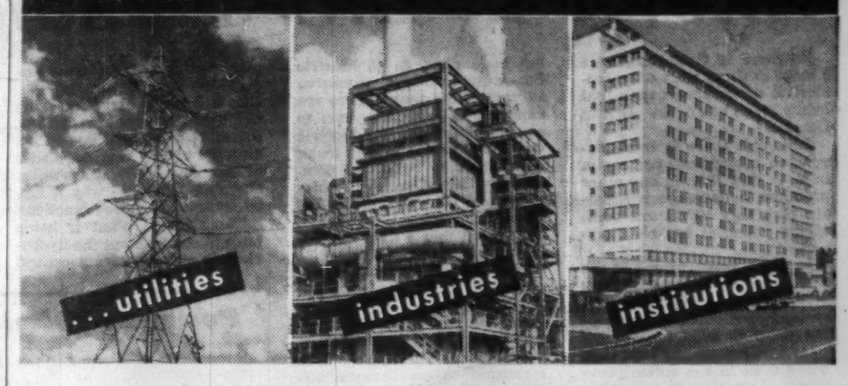

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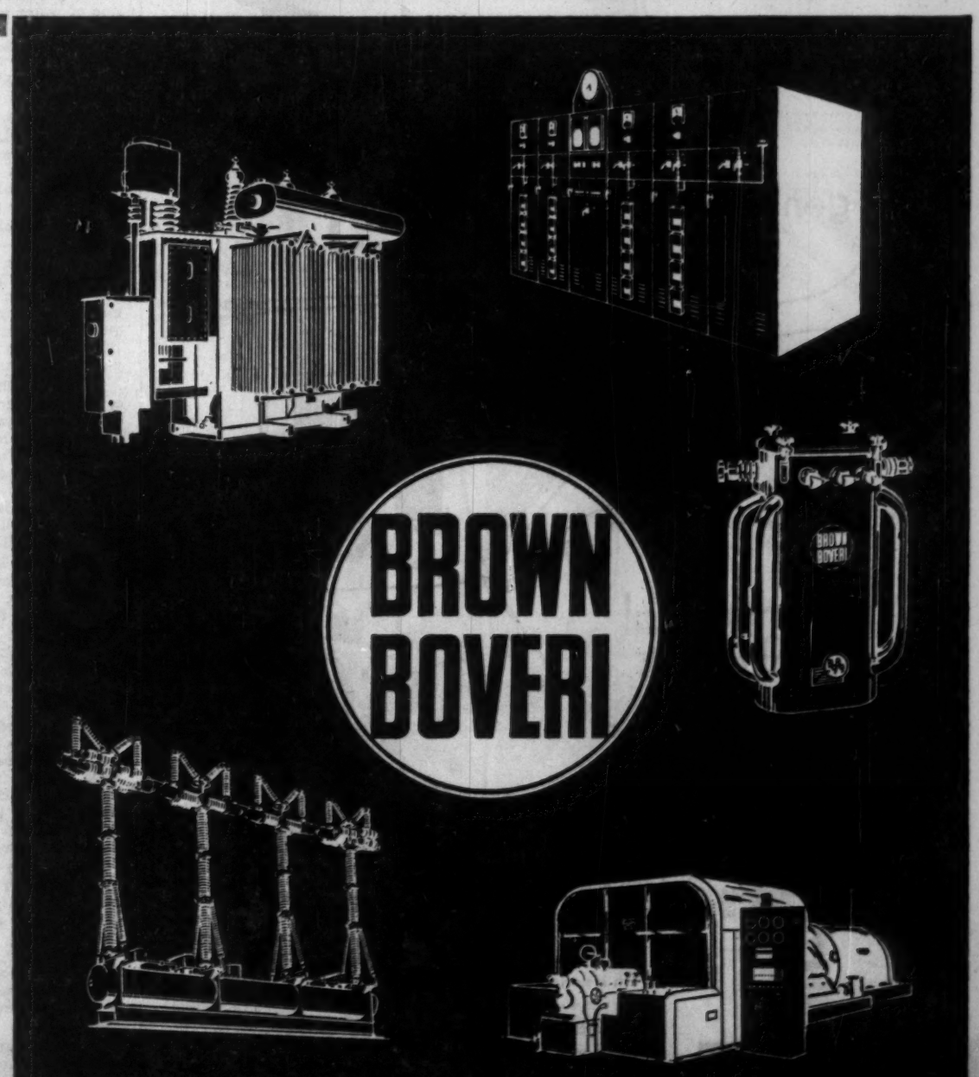

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Canada's Most Exciting Power Drama Unfolds in B.C.'s Mountain Valleys

Nowhere in Canada is there a more exciting story of hydro-electric development than that being written in British Columbia.

Although there is more developed horsepower per capita in B. C. now than in any other province, hydro experts estimate that only about one-tenth of the potential has been tapped.

In the coastal regions of the rugged province there are six major undeveloped hydro power sources capable of developing close to nine million hp. That's four times the total now being used in the entire province.

Since some 80% of the total population of the province lives in the southwest corner, all but the most southerly of the untapped coastal sources are too remote to be economically developed for use in the lower mainland area.

It is not far-fetched, however, to forecast ultimate development of every one of these power areas over the next 10-15 year period by major industrial concerns.

To supply the phenomenal growth in power demands in the heavily populated Lower Mainland area the most promising potential lies in the Columbia and Fraser rivers basins

The Columbia is 1,200 mi. long, has a total fall of 2,650 ft., the upper half of which occurs in Canada. Although the Americans are rapidly completing development of the lower portion of the river, up to now there has been no corresponding development on the Canadian side. Developments in the last few months, however, make it virtually certain now that a tremendous new hydro power development will soon be undertaken on the upper reaches of the Columbia some 140 mi. north of Revelstoke.

This proposed hydro development dwarfs all others in the Province — the world's largest dam project, a $250 million Mica Creek dam on the Columbia River.

This, one of the most ambitious engineering feats in Canadian history, will supply some 1.5 million hp to power-hungry B. C.

To establish a claim to build the huge dam, **B. C. Electric Co.** is undertaking extensive surveys of the river. These are expected to take two years to complete and B. C. Electric will likely be the first to make application to build the dam. In June, Maj.-Gen. A. G. McNaughton, chairman of the International Joint Commission, announced that a dam at Mica Creek would be feasible.

If B. C. Electric gets approval to build the proposed 700-ft. dam, plans are then to bring the power via high-tension wires 450 miles to the Vancouver area. The line alone is estimated to cost around $90 millions. It would use a double-conductor system which reduces line losses at high voltage. The line would operate at 500,000 volts, highest in the world.

About the time this proposed project would be completed, some eight to 10 years hence, the Province would be in desperate need for additional hydro power.

The areas currently served by B. C. Electric (now serving some 67% of the people of B. C.) will need around six million hp of new generating capacity by 1980 at current rate of system's load growth, company experts estimate.

"At the present rate of growth—about 13% annually—our area will run out of potential hydro-electric sites in less than 10 years unless development of the Columbia or Fraser rivers is allowed," Dal Grauer, president of **B. C. Power Corp.**, (parent company of B. C. Electric), stated recently. The area is the most heavily populated section of B. C.—the Lower Mainland and Vancouver Island south.

B. C. Electric is now pushing on with a $50 million hydro and thermal electric program which will add more than 450,000 hp to the electric supply of the Lower Mainland and Vancouver Island south over the next five-to-six years.

This is by far the largest power program ever undertaken in the 59-yr. history of the company, is almost double the size of the Seton and Cheakamus projects, totaling 248,000 hp, which come into operation this summer and next.

Work is starting this year on a 130,000-hp thermal electric plant which will generate energy by burning natural gas. This will be the first large-scale plant of its type in Canada. Superhot gases will be applied directly to the turbine blades of the four generating units, much in the same way a turbo-jet aircraft engine functions.

The thermal plant is being built to complement the hydro-electric system during critical water years. Location is on the fringe of metropolitan Vancouver. Three of the four units will be operating by 1958. The project will take 30 months and $7 million to complete.

Construction started this summer on development of the second — and final — stage of company's Bridge River generating plant. Four new units totaling 320,000 hp will be added, raising total capacity from this source to 568,000 hp.

This will require another huge storage dam to hold water for year-round operation of the four new generating units; a second 2½-mile tunnel through Mission Mountain, and a new power station a half-mile west of the existing plant.

Two of the four units will be installed and operating by 1959. The third and fourth are scheduled to go "on line" in 1960 and 1961, depending on how rapidly the demand for energy builds up in this area.

This complete $43-million Bridge River job, along with the satellite station at nearby Seton Creek, will be able to send more than 2 billion kwh of energy yearly south to the Lower Mainland and, via underwater cables, to Vancouver Island. Power will travel the 130 mi. to Vancouver over the present 230,000-volt Bridge River line and also over a new 345,000-volt circuit now under construction.

Vancouver Island was connected with the Lower Mainland last month by the longest underwater cable in the world. The cable hitched the power-hungry Island into the huge mainland power system of B. C. Electric. The 90 miles of cable will provide the southern part of Vancouver Island with a new lease of life from an industrial expansion standpoint. Capacity of the new underwater cable is 150,000 hp.

Work is continuing on the large Cheakamus project, which provides for the diversion of water from Cheakamus River through a 6¾-mile tunnel to the Squamish River. Close to half the tunnel has been completed. Work is now under way at the site of the diversion dam.

The generating plant, on the Squamish River, will comprise two units of a combined capacity of 140,000 kw. Completion is planned for autumn, 1957.

British Columbia Power Commission — government-owned public utility which serves a large part of Vancouver Island and parts of the mainland—estimates power requirements of its entire system will double in the next three years, almost triple by 1961.

In the 1954-55 fiscal year the commission generated about 825 million kwh to meet requirements of more than 60,000 customers. Total generation for 1955-56 is predicted at 950 million kwh. In the 1960-61 fiscal year it is estimated the commission will be generating around two billion kwh.

This will mean increasing the system's present installed capacity of about 240,000 hp to some 700,000 hp in the next five years.

Here is a quick look at the main hydro developments being carried forward as rapidly as possible by the Commission:

● Clearing and construction is under way on the $22-million Upper Campbell Lake-Buttle Lake project, two miles below the outlet of Upper Campbell. By fall, 1957, installation of a 42,000-hp generating unit should be complete.

If approved recent decision to divert water from the Heber River into Upper Campbell Lake (costing an additional $1 million) will provide additional water for the Upper Campbell development. This would increase annual output of the total development by 40 million kwh.

● Further downstream, at the outlet of Lower Campbell Lake, work is well advanced on the $8 million Ladore Falls project. The first of two 35,000 hp generating units should be in operation shortly. A second unit of similar capacity will follow as soon after as possible.

Plans to divert the Salmon River into the Lower Campbell if approved would provide more water for power generation at Ladore Falls and John Hart developments. This proposed $3 million project would boost annual output of the two plants by 100 million kwh. A Quinsam River diversion into Lower Campbell Lake would boost the two plants' capacity even further—an additional 30 million kwh annually. This project would cost a further $1 million.

Vancouver Island sorely needs the additional power these projects will provide. Though it has about 19% of the province's population, it is endowed with only 4% of the hydro potential.

● Because of this, the Commission is engaged in studies and surveys for a major source of hydro power in the Alberni valley. It is believed several hydro developments on the Ash River—Great Central Lake—Sproat River system would enable 80,000 hp to be harnessed. Cost of such a project is estimated at around $2 million.

● As another means of meeting the Island's future requirements, surveys are being made of the Homathko River with a view to bringing additional power from the Bute Inlet of the nearby mainland. There are several sites on the Homathko capable of producing something in the order of a million hp.

● In the central region of the interior of the province, the Commission is studying the Helmcken Falls area, at the confluence of the Murtle and Clearwater Rivers, for a possible major hydro source in the order of 75,000-to-100,000 hp.

● To meet increasing demands of the North Okanagan area the capacity of the Whatshan hydro development is being increased from 33,000 to 50,000 hp. This project involves installation of a third generating unit, a second 69-mi., 132,000-volt transmission line over Monashee Pass and construction of a new terminal building at Vernon. Total cost: About $3 million.

Highlights of the Commission's 1955 program:

—Opening on June 2 of the Puntledge River development near Courtenay. The 35,000-hp. plant took two years to construct at a cost of $7 million.

—In July, 1955, the 5,500-hp Spillimacheen River development in Columbia Valley was opened. This also had taken two years and more than $2 million to build.

Far up the coastal region of the B. C. mainland **Aluminum Co. of Canada** is pushing its $190 million Kitimat project toward greater expansion goals. All-important part of the program, designed to double company's aluminum capacity, is gradual expansion in power capacity at the nearby Kemano project.

A further 150,000 hp. was added early this year. Another 150,000 hp is designed to come into production by end of the year.

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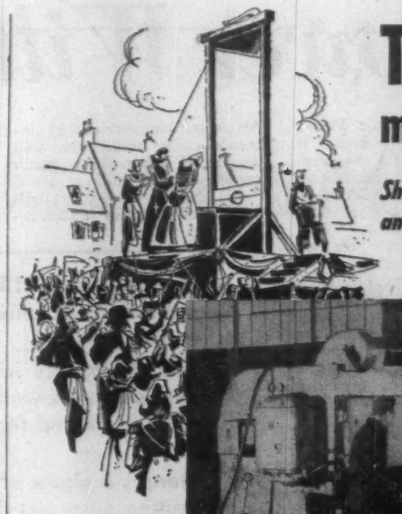
"Progress": B. C. Power Commission



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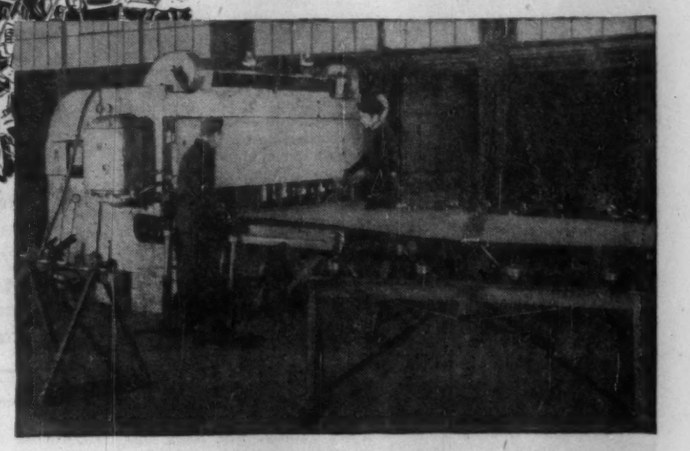

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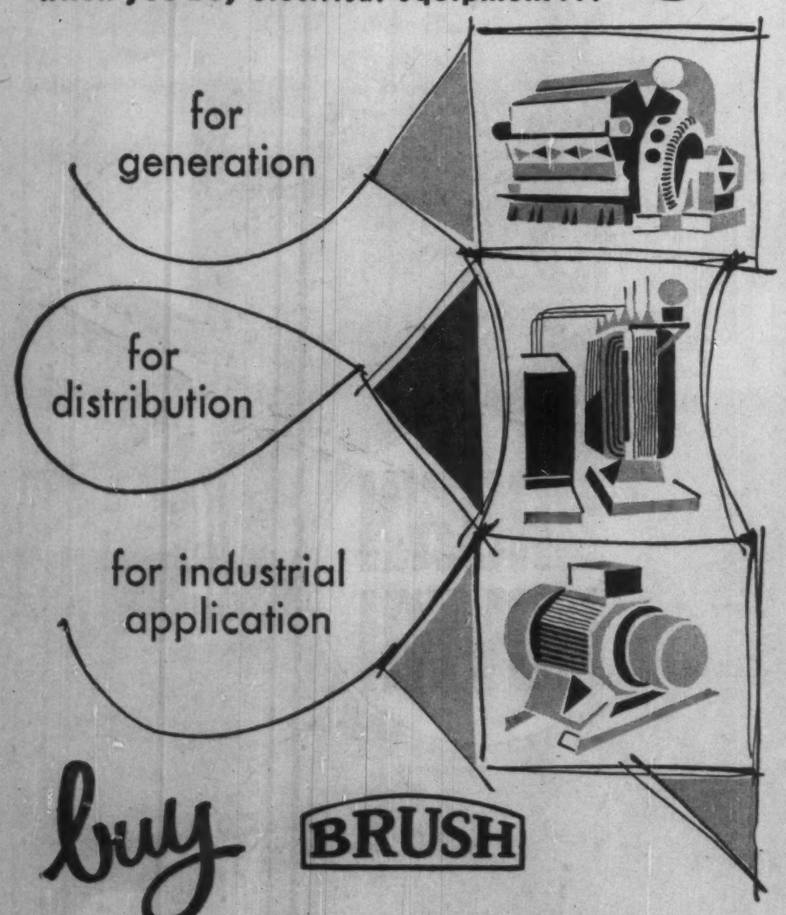

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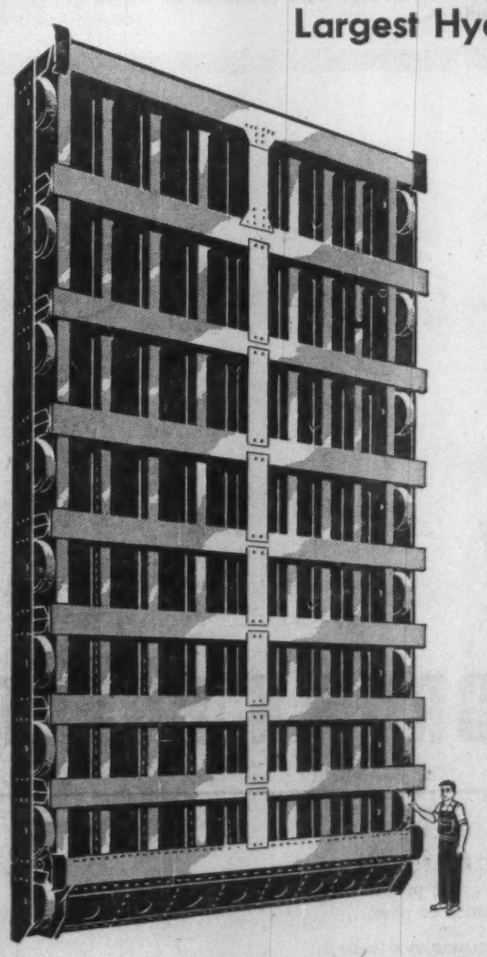

Illustrated at left is a scale drawing of one of 48 head gates for the Canadian section of the Barnhart Island Power House—a part of the St. Lawrence power project.

These gates comprise the largest order of the kind ever placed in Canada and are now being fabricated for Ontario Hydro. With bedded parts and hoists, they are designed by Dominion Bridge for 17 ft. wide by 37 ft. high openings. Each will withstand a pressure of 3,000,000 lbs. with 93 ft. head at sill.

By its association with most of the large power projects built in Canada, Dominion Bridge has accumulated a wealth of experience, making it a leading authority in this specialized field.

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Typical examples of Dominion Bridge work for other Hydro Projects.

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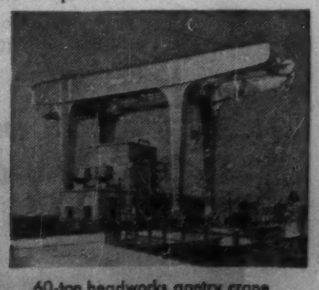

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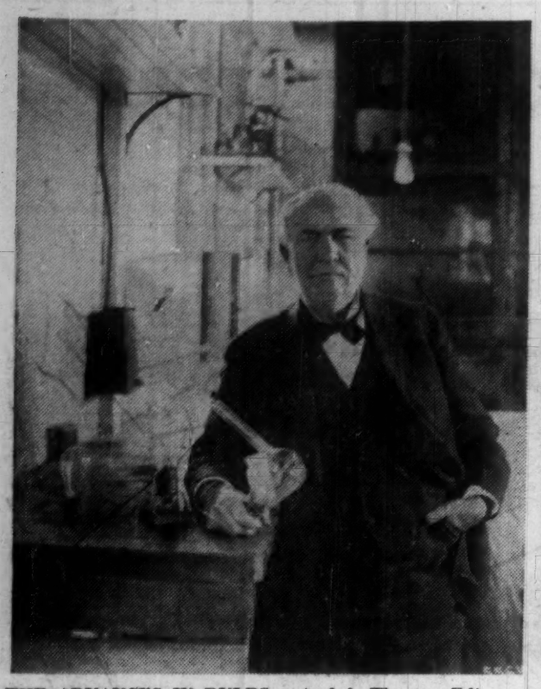

THE ADVANCES IN BULBS: At left Thomas Edison and some of his early light bulbs. At right, a model displays the latest types and shapes of lamps.

Has Industry Licked Imports? Chart Slight Drop Since 1953

Import competition in the electrical manufacturing industry reached probably its highest recent level in 1953 when 24.9% of electrical apparatus sold in Canada was imported. The ratio of imports to total sales has been declining slightly since then.

There's a good deal of evidence that certain segments of the Canadian electrical manufacturing industry have been hard hit by the import competition. The Canadian consumer, of course, has been the beneficiary.

Where does the competition come from? Mainly from the U. S. and U. K.

The U. S. is Canada's most important supplier; in 1953 it supplied almost 90% of Canada's imports of electrical apparatus. The U. K. in that year supplied about 9%; other supplies came from Western Europe.

The effect on the Canadian industry of the competition of the two major sources can't be deduced from these figures alone which overstate the importance of the U. S. competition.

A large part of the U. S. competition consists, of course, of the import of mass-produced goods in quantity which has hurt Canadian producers — an example of this is refrigeration equipment. But on the other hand, a good part of the imports from the U. S. consist of parts and components that are often complementary to rather than competitive with Canadian production.

U. K. Advantage

Imports from the U. K., however, consist largely of custom-built equipment — heavy generators, power transformers, circuit breakers and telephone and telegraph equipment — which can't be readily mass-produced and of which there are Canadian suppliers who are affected. In products of this type, lower labor costs give U. K. producers a cost advantage over Canadian producers.

Moreover, it is worth noting, the increase in imports from the U. K. has been very rapid in the last year or so.

In recent years, there has been a number of reductions in Canadian tariffs on electrical manufactures under the General Agreement on Tariffs and Trade. To what extent have these reductions been responsible for the increase in imports? Last year, the Canadian Electrical Manufacturers' Association asked Prof. F. A. Knox of Queen's University to answer this question.

Prof. Knox felt that the tariff changes may constitute a partial explanation of the increase in import competition; but certainly not a complete one.

"Just after the war, foreign producers were too busy satisfying rising consumer demands in their own markets and modernizing their own plant and equipment to bother much about exports. Many countries during the postwar years imposed restrictions on imports to enable them to keep their international transactions in balance at rates of exchange higher than would have been possible in a free market."

Devaluation Factor

Prof. C. L. Barber of the University of Manitoba, associated in the preparation of the Knox Report, felt that the tariff changes are important in explaining the rise of import competition from the U. S.; but that the 1949 devaluation of sterling is more important in explaining the increase of import competition from the U. K. and Western Europe.

"During the early postwar period the price of the pound sterling in Canada had fallen from its 1938 level of $4.92 to a level of $4.02. This moderate fall gave the British manufacturer little or no advantage, however, for at that time his wage rates had risen more since 1938 than those of his Canadian competitors and his production efficiency may well have been badly hampered by the disorganization that followed the war.

"But the severe depreciation of the pound in September, 1949, coupled with the rise in the value of the Canadian dollar since that time has completely changed this picture. Sterling devaluation has given the British manufacturer a very important advantage for he can now cover the sterling equivalent of a Canadian dollar's worth of wage costs by receiving 56 Canadian cents. The Canadian manufacturer must still get a dollar."

Devaluation changes are not necessarily permanent ones but Prof. Barber believes that part of the advantage derived by the U. K. from the 1949 currency devaluation will remain for many years; however, "about half" of the advantage should disappear within five to 10 years.

Changes in tariffs, wage rates and exchange are each seen playing an important part in the increase of competition from the U. S.

Rise In Wages

During the period 1949 to 1954, the average hourly earnings of workers in the Canadian electrical manufacturing industry increased about 39% compared with only 26% for the same industry in the U. S. Over the period 1939 to 1954, earnings increased 233% in Canada compared with only 158% in the U. S. Unless offset by more rapid gains in productivity — and there is evidence that the productivity picture in the two countries has been substantially similar—the Canadian electrical manufacturer has seriously weakened his competitive position on the score of labor cost.

Another factor giving the U. S. producer a competitive advantage is the high level of the Canadian dollar. Normally, high wage costs in Canada should produce adjustments in the opposite direction — falling off of exports and a decline in the value of the Canadian dollar. But other factors have kept investment flowing into the country and the Canadian dollar has remained at a premium over the American one — contributing to the competitive advantage enjoyed by the American manufacturer of electrical equipment.

Still another factor which makes recent U. S. competition cut more keenly is the happy experience import-wise of the Canadian electrical manufacturing industry from 1940 to 1950.

During the war, priorities and shortages greatly reduced imports of electrical products into Canada. In the early postwar period the intense levels of demand in the U. S. and Europe

(Continued on page 64)

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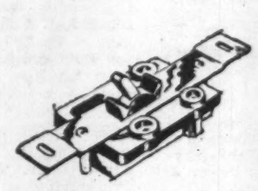
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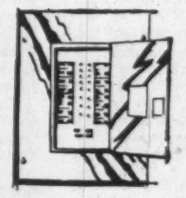
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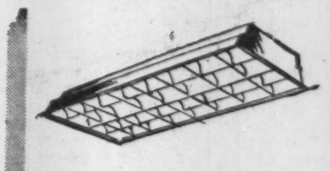
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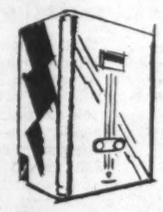
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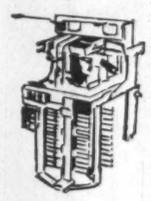
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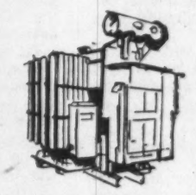
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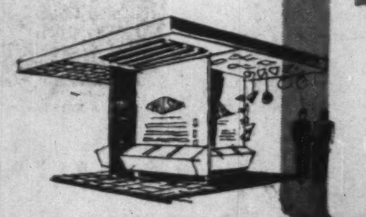

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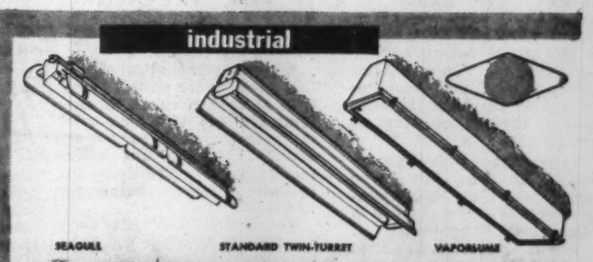

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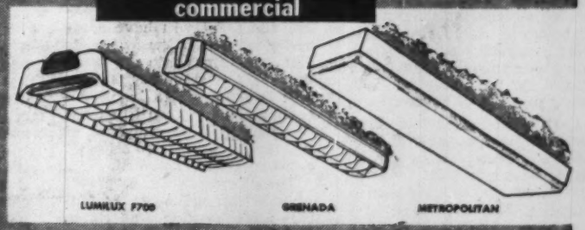

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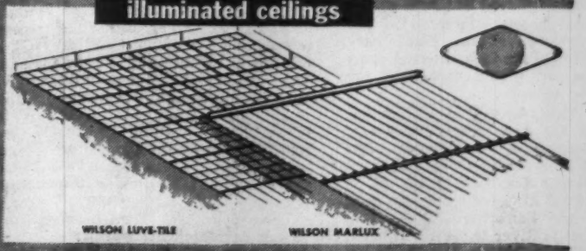

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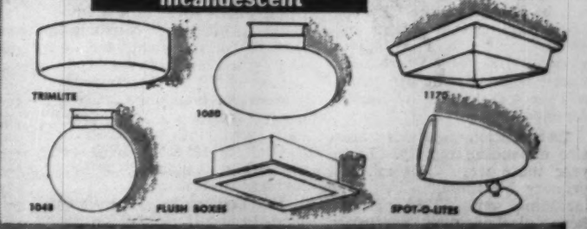

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How N.B. Getting Power

For New Brunswick, hopes for a bigger chunk of Canada's prosperity rest squarely on more power.

An ambitious growth program is now under way. An estimation of the cost runs to $200 million between now and 1965. A further projected program for the 20 years following that could cost anywhere from $350 million to a staggering $800 million.

Naturally, this sort of money is not easily obtained. Early this year, the province entered a heart-felt plea to Ottawa for federal assistance, especially in allowing at low interest rates for power expansion.

The submission contained a clear picture of future plans for the next decade.

"In the next ten years," it read, "the economy of New Brunswick will be confronted with exceptional opportunities for the growth and expansion of two basic industries — mining and allied metallurgical industries and pulp and paper.

"However, both industries require large quantities of relatively cheap electric power. As a consequence, their expansion will entail a truly enormous increase in the generating capacity of New Brunswick Electric Power Commission."

(The commission is the major New Brunswick supplier, owning about 25% of present hydro capacity — that percentage is due to rise sharply — and about 60% of fuel-using capacity.)

"In addition, normal load growth is increasing at a rate of 10% a year, compounded. This, by itself, will entail a very substantial expansion in generating facilities.

Power Potential

"The necessary electric power can be made available by the development of the hydro power of the St. John River and construction of a series of large thermal plants.

"To obtain power at lowest possible cost, this should be undertaken by the Commission. However, this will entail capital expenditures which are obviously quite beyond the capacity of the New Brunswick Government."

Year by year the commission plan calls for:

1956: 22,000-kw steam plant at Chatham.

1957: Two 34,000-kw hydro units at Beechwood on the St. John River, 100 miles north of Fredericton.

1958: A further 34,000-kw hydro unit at Beechwood; a 20,000-kw hydro unit on the Tobique River, a tributary of the St. John; a 50,000-kw steam plant at Dalhousie.

1959: Two 50,000-kw steam units at Saint John.

1960: A 50,000-kw steam unit at Bathurst, major mining centre in northeastern New Brunswick.

1961: Nothing.

1962: Another 50,000-kw unit at Bathurst.

1963, 1964 and 1965 will each see a further 50,000-kw unit installed at Bathurst.

1966: A 75,000-kw hydro plant at Hawkshaw, farther down the St. John River from Beechwood.

Total expansion: 619,000 kw.

Sweeping as these plans are, experts figure there is still more power potential in New Brunswick.

It is estimated power units could be built at Hawkshaw; at Crock's Point, farther down the St. John; and on a number of smaller rivers.

It has been said the total potential of the St. John is around 536,000 kw, about 45% of this in Maine. The hydro potential of the other rivers is about 146,000 kw.

If all these resources are developed properly, the Provincial Government hopes to reduce comparative power rates eventually by anywhere up to 40% or 50%. Of course much depends on the ease and cost of borrowing capital funds.

The big Beechwood scheme is well ahead of construction schedule. The middle of October saw the completion of concrete pouring for two of the nine rollways of the Commission's 135,000-hp hydro project.

Within the last two months **Foundation (Maritime) Limited,** general contractors, have completed the power house retaining wall linking it with the 70-ft. earth dam already one-third built.

The regulating sluices have also been brought up to final elevation, and the substructure of the powerhouse is well under way.

Three draught tube forms have been placed under the installation site for the turbines, concrete pouring around the tubes has begun.

Construction of the 1,600-ft. dam is reported "several weeks" ahead of schedule and the $50-million project is now expected to be completed by midsummer, 1957.

When it's completed, the estimated energy output in an average water year from the project is 355 million kwh from the first two units and 430 million kwh from the three.

The work at Beechwood involves moving more than 500,000 yds. of earth and 150,000 of rock. Considerable diversion of road and rail lines has also been made necessary by the higher water level backed up by the project.

An interesting sidelight: A unique fish hoist about 10 ft. deep, 10 ft. wide and 30 ft. long, which picks up fish and water, lifts them and dumps them on the other side. This is the first time this method has been used in Eastern Canada.

Another recent move in the power search was this summer's acquisition by the New Brunswick Electric Power Commission of the **Bathurst Electric & Water Power Co. Limited.**

Chairman Edgar Fournier explained the Commission had taken over the distribution of electric power in the area served by the **Bathurst Power & Paper Co.** subsidiary.

Co-ordination

Acquisition of the distribution system, he said, was in line with the Commission's policy of co-ordinating generating and distribution facilities throughout the province so that service could be on the most economical scale possible.

There is still another power possibility. This one sets New Brunswick planners dreaming of vast new industrial wealth. It is the fabulous Passamaquoddy tidal power project. The scheme has been kicked around for 35 years. This summer a U. S. survey costing some $3 million was begun to investigate its real possibilities.

This is the dreamed-of project:

An elaborate system of dams and gates would make a huge storage basin out of Passamaquoddy Bay at the mouth of the Saint Croix River running between U. S. and Canada.

A second basin would be formed southwest of Passamaquoddy Bay in Cobscook Bay. The first storage basin would be largely in Canadian waters, the second entirely in the U. S.

The development would use the rise and fall of the tides of the Bay of Fundy for generating electricity. Owing to the favorable topographical formation in the region, it's believed, it is possible to construct works at a reasonable cost which will permit creation of the two storage basins.

The upper storage basin —"Quoddy"— serves as a reservoir of supply to the powerhouse while the lower basin is planned as a reservoir to receive water from the powerhouse.

The plan estimates that at no time will the level of these two basins be the same. Thus a continuous output of power can be assured. At high tide the upper basin would be refilled with the rising tide. The lower basin would be emptied with the falling tide.

This summer, General A. G. L. McNaughton and Leonard Jordan, chairmen, Canadian and U. S. sections of the International Joint Commission, visited the proposed site. Afterward they jointly promised a quick decision on feasibility of the plan.

General McNaughton then said: "There will be no avoidable delays and no lack of energy in studying this undertaking." Mr. Jordan added: "The IJC shares with the people of Maine and New Brunswick the zeal to get these power resources developed."

On their visit to Quoddy they were accompanied by Richard E. Field, chief engineer of the $30-million Garrison Dam project on the Missouri River in North Dakota. Field is directing this year's survey.

Oil Shale

There's one more dream to add to these. That would be the building of a $11-million power plant in Albert County in the southern part of the province based on the burning of oil shale. It would be Canada's first such project. (This is of considerable interest to Nova Scotia as well, which has its own large oil shale deposits.)

This scheme, too, has had planners arguing for years.

It came to life in 1954 when plans were drawn up by **Nashwaak Corporation** of Montreal in talks with the New Brunswick power commission.

The corporation asked to sell the Commission quantities of power produced from burning ore mined from shale deposits 20 miles south of Moncton. It was then stated byproducts would be alumina and potash. The latter could form the basis of a fertilizer industry.

The process works like this: Crushed shale is burned, resulting in great excess of heat to be used for steam generation of electric power.

The ore would be mined using open-pit methods. A federal survey announced oil shale reserves at the Albert Mines site amount to 100 million tons to a depth of 400 ft. That's enough fuel to supply the power plant, as originally envisioned, for a hundred years. Average oil content of the shale is 10.6 imperial gal. per ton.

Alberta Output Jumps 200% Rate to Keep Up for Decade

Power and still more power is the cry of Alberta's surging economy. Public utilities are expanding their facilities as fast as they can, to meet growing demand for electrical energy.

To keep pace with these demands, at least three new power plants are being constructed, and others planned in Alberta. The production of power in Alberta has increased 200% during the past 10 years, is expected to maintain a high rate of increase for at least the next decade. In 1955, the generating capacity of all plants was approximately 463,000 kw. 740,000 kw is forecast by 1959. 1956's jump is to 561,000 kw.

Last year, Alberta's consumption was over 1,728,000,000 kwh, generated by power plants having a total capacity of 462,500 kw, an increase in output of 15% over 1954.

In 1955, hydro-powered generators turned out 54% of the total power generated in the province. Steam plants accounted for 44%. Internal combustion plants accounted for the balance.

This year will see completion of the first units in two new steam plants in Alberta. The Wabamun plant of **Calgary Power Ltd.** will introduce a 66,000 kw gas-fired steam unit, while **Canadian Utilities Ltd.** Battle River Project will bring into service its first 32,000 kw coal-fired unit. Next year work will be started on the City of Edmonton's steam plant in preparation for the installation of two 30,000 kw gas turbines. These, when installe in 1958, will be the largest in North America.

Transmission systems are also expanding rapidly. Last year there were 8,968 mi. of primary transmission line, not including some 27,000 mi. of farm electrification services. With the increase in the number of oil fields, many heavy transmission lines have been extended to a number of new areas so that now large blocks of power are available to almost all settled areas of Alberta.

The rapid expansion in the generation and transmission of power in the province is due largely to the expanding oil, gas and allied industries. Industries associated with petroleum products and by-products are increasing and expanding.

Alberta has more than a million hp of water power, more than 11 million cu. ft. of natural gas, and 17 billion tons of mineable coal as power sources. Much of the latter can be strip-mined helping to produce power as cheaply as hydro.

New projects now under way or completed include the Calgary Power steam plant under construction at Lake Wabamun. Costing over $8,000,000, the plant will have a capacity of 66,000 kw when its first unit comes into operation this fall. A second 66,000 kw unit is expected to be in operation next year. Ultimately, the plant will be composed of four units—two 66,000 kilowatt and two 100,000 kilowatt.

The Pocaterra Development of 18,500 hp on Lower Kamanskis Lake went into operation last fall.

A steam plant constructed on the Battle River near Forestburg by Canadian Utilities will be in operation this year. The capacity of the first unit will be 32,000 kw with provision made for additional units. The damming of the Battle River ensures a plentiful water supply, while coal from nearby fields will provide the necessary fuel.

The Bearspaw dam and power development near Calgary began operating last year, adding 22,000 hp to the system. In the Peace River area, Canadian Utilities and **Northland Utilities** have completed a joint plant at Fairview, containing two 1,250 kw internal combustion type units. Using natural gas as a fuel, these units went into operation in the fall of 1954. A 5,000 kw gas turbine is planned for Valleyview in 1957.

At Lethbridge, the city plans to install an 8,000 kw gas turbine next year.

Calgary Power will add to its capacity by installing another 18,000 kw hydro unit at the Cascade project. A 23,000 kw hydro plant was installed at the Ghost River plant in 1954.

Also in 1954, the first gas turbine to be installed in Canada was opened at Vermilion by Canadian Utilities. Since that time another 11 have been ordered in the Western Provinces.

Has the Industry Licked Imports?

(Continued from page 63)

kept down the amounts of goods which were available for import into Canada. Similar shortages existed during the Korean War and the 1947 Canadian import restrictions were effective to a substantial extent up to 1950.

Thus, Prof. Barber says, for a whole decade, the Canadian electrical manufacturing industry "enjoyed to an unusual degree a reduction of import competition in the Canadian market."

However, some manufacturers argue that the GATT tariff reductions plus associated changes in the Customs Act do permit considerable import competition as far as the Canadian industry is concerned — competition in which many U. S. products are sold in Canada at less than cost.

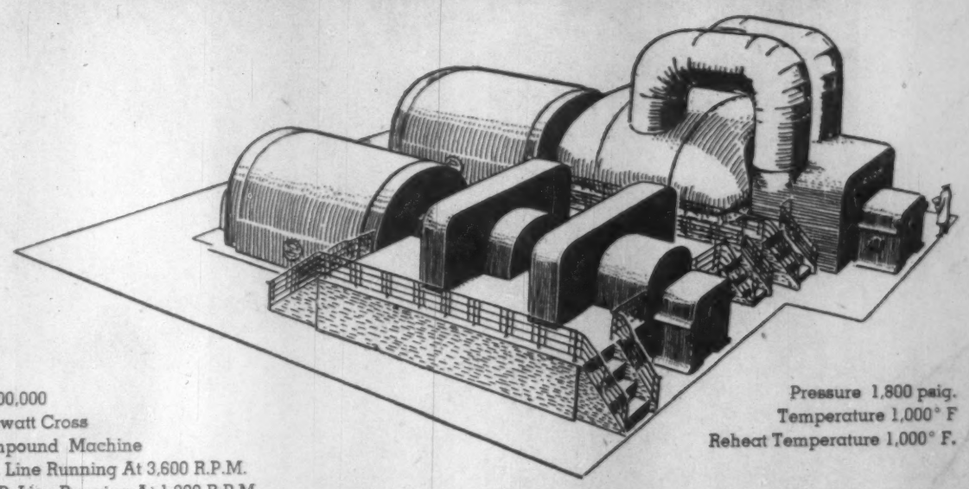
What's been the effect of all this on the industry?

Income and employment continued to increase until the end of 1953. There was a substantial fall in production during the first half of 1954 (a wide range of other manufacturing industries had the same experience) which was followed by a recovery late in 1954 and last year.

The 1954 recession could have been a reflection of the general inventory recession that the Canadian economy was undergoing, Prof. Barber suggests, as much as it reflected import competition. And "for the industry as a whole, the growth in demand since the end of the war has been so rapid that it has been possible for Canada to absorb a rising volume of goods without any reduction in Canadian output."

This picture, of course, varies in various parts of the industry. At one extreme, the production of television equipment continued to increase rapidly even during 1954. At the other, output of refrigerators began to fall as early as 1951. And of course, for various types of custom-built equipment, U. K. and other European competition has been effective against Canadian manufacturers in the last year or two.

PARSONS TURBO-GENERATORS



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H.P. Line Running At 3,600 R.P.M.
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Both Generators Develop 100 Megawatts Each.

Pressure 1,800 psig.
Temperature 1,000° F
Reheat Temperature 1,000° F.

Three of these machines on order for the Hydro-Electric Power Commission of Ontario for the Richard L. Hearn Generating Station, Toronto

Over Two Million K.W. installed and on order in Canada

C. A. PARSONS OF CANADA LIMITED
ROYAL BANK BUILDING, TORONTO 1, ONTARIO

"It's radio-active!"

Some displays sit. Others sell.
This corrugated model does the latter...
promotes decorator-colored radios
quick as you can say Marconi.
Need an "active" display for
your product? Check H&D.

HINDE & DAUCH
H&D® AUTHORITY ON PACKAGING
TORONTO 3, ONTARIO

MILLS in Toronto, Trenton, Ont.
FACTORIES in Toronto, Chatham, Ont., Montreal, Que.
SUBSIDIARIES with Factories in Peterborough, Ont.
Winnipeg, Man., Calgary, Alta.
SALES OFFICES in Toronto, Chatham, Hamilton, Kitchener,
London, Peterborough, Windsor, Ont.,
Montreal, Granby, Quebec, Que.
SUBSIDIARIES with Sales Offices in Peterborough, Ont.,
Winnipeg, Man., Calgary, Edmonton, Alta.
SALES AGENTS in Halifax, N.S., St. John's, Nfld., Vancouver, B.C.

TYPICAL OF CANADA'S mighty power installations are the two Sir Adam Beck stations of Ontario Hydro, on the Niagara River. Together they have an installed capacity of more than a million kilowatts.

Low Profit Margin Bugaboo, May Cause 'Output Impasse'

The Canadian electrical manufacturing industry produced more than $1 billion worth of goods last year, 10% more than in 1954. Production in 1956, say the industry's leaders, will push the record even higher.

Those are the basic facts of the industry.

Behind them lie doubts and fears.

These were outlined when more than 600 senior executives of the industry met in Niagara Falls this month at the Canadian Electrical Manufacturers Association's 12th annual meeting.

The major fear: A low profit margin.

Said H. M. Turner, out-going president of CEMA:

Unless the next few years bring a greater return on the sales dollar, the industry could very well strike an impasse on production which would hurt our economy."

Said B. Napier Simpson, general manager of CEMA:

"Last year did not bring with it the anticipated easing of the border-line profit margin which has been seriously retarding expansion and development since late 1953.

"In fact, last year's profit on sales was less than half of the average shown for all industry in Canada during the same period."

In contrast to the average manufacturing profit for 1955 of 5.9%, reported by the Canadian Manufacturers' Association, the electrical manufacturers reported these profits: 1952, 4.1%; 1953, 4%; 1954, 2.6%; 1955, 2.9%.

Reported Simpson:

"CEMA's annual survey of electrical manufacturing companies shows that only 0.8% of the average profit was paid out in dividends, the lowest average payment in the industry's history. The remaining 2.1% was reinvested in business to cover plant and equipment expansion, modernization and replacement costs.

"Obviously, this infinitesimal amount which was plowed back into the business is hardly adequate to meet the expansion demands of an industry that is so important to the economy of the country. As the average depreciation for the year was 1.8%, it is apparent that our companies had to cut dividends in order to meet reinvestment costs.

"The industry's current low profit margin began in the latter part of 1953, as a result of attempts by Canada's electrical manufacturers to meet low import prices of foreign manufacturers.

"The crux of the problem is the high wages paid by Canadian manufacturers, which are two-thirds higher than those paid by many European countries. In 1955, wages, salaries and employee benefits paid by Canadian electrical manufacturers accounted for 25.8% of the sales dollar.

"This is a far greater percentage than that paid by most foreign manufacturers and it is obvious that the European manufacturers' low prices are based on low wage rates, rather than the production efficiency and nominal profits which are now the hallmark of Canada's electrical manufacturers."

In contrast to the average 47.5% spent on raw materials by all manufacturing industry in Canada last year, the electrical industry spent 52.1% of its sales dollar on materials. This proportion has been increasing yearly, with 47.8% in 1952, 49.2% in 1953 and 50.8% in 1954.

The raw materials used by Canada's 460 electrical manufacturers in 1955 totaled $472 million as against $396.5 million in 1954.

H. M. Turner reported little change in the employment picture from 1954 to 1956 when the industry paid some 75,000 workers about $257 million in wages and salaries. "This is still 1,800 workers fewer than were employed in 1953, although wages and salaries increased by $6.5 million during the two-year period."

Here's a breakdown of the Canadian electrical manufacturers' sales dollar in 1955:

	%
Raw materials	52.1
Wages, salaries, benefits	25.8
Federal, provincial taxes	2.7
Excise and sales taxes	5.3
Depreciation	1.8
Profit	2.9
Other expenses	9.4
	100.0

FIRST TRANSMISSION LINE

The first high-voltage transmission line in the British Commonwealth was pioneered in Canada in 1887, between St. Narcisse and Three Rivers, Que.

CANADA HELPED MARCONI

Marconi perfected wireless telegraphy in Nova Scotia at the turn of the century. Canada gave him an $80,000 grant to help with his experiments.

Street Lighting Investment Could Cut Crime, Accidents

"There is probably less educational effort being done on lighting in Canada today, than almost any other single consumer product on the Canadian market."

W. A. Dalrymple of Amalgamated Electric Corp. made this statement to a special meeting of some 45 Canadian lamp and fixture manufacturers held early this year to form the first Canadian Lighting Bureau.

Reduced traffic accidents, better control of crime and juvenile delinquency, and better relations with taxpayers are some of the main reasons for justifying increased expenditures on new streetlighting programs throughout Canadian municipalities.

A recent survey reveals that nearly half (41.6%) of Canada's streetlighting has been installed or modernized since the war. Improvements to existing lighting will cost $7.4 million in the next five years, and extensions to serve new subdivisions will cost $12,730,000.

Series circuits are rapidly losing favor as a method of supplying power to street lights, the survey showed. Out of a calculated 15,700 miles of street lights, only 4,830 miles of series circuits remain. The old difficulty with series circuits, the fact that a line break can darken a large area, is the the main reason for switch to the multiple circuits.

Incandescent Lighting: The vast majority of street lights in Canada are still incandescent, with mercury vapor far behind as second choice. Fluorescent is third, and a few installations of sodium vapor exist. Mercury vapor lighting seems to be gaining rapidly in popularity, especially for commercial streets. Some think it too expensive for residential area.

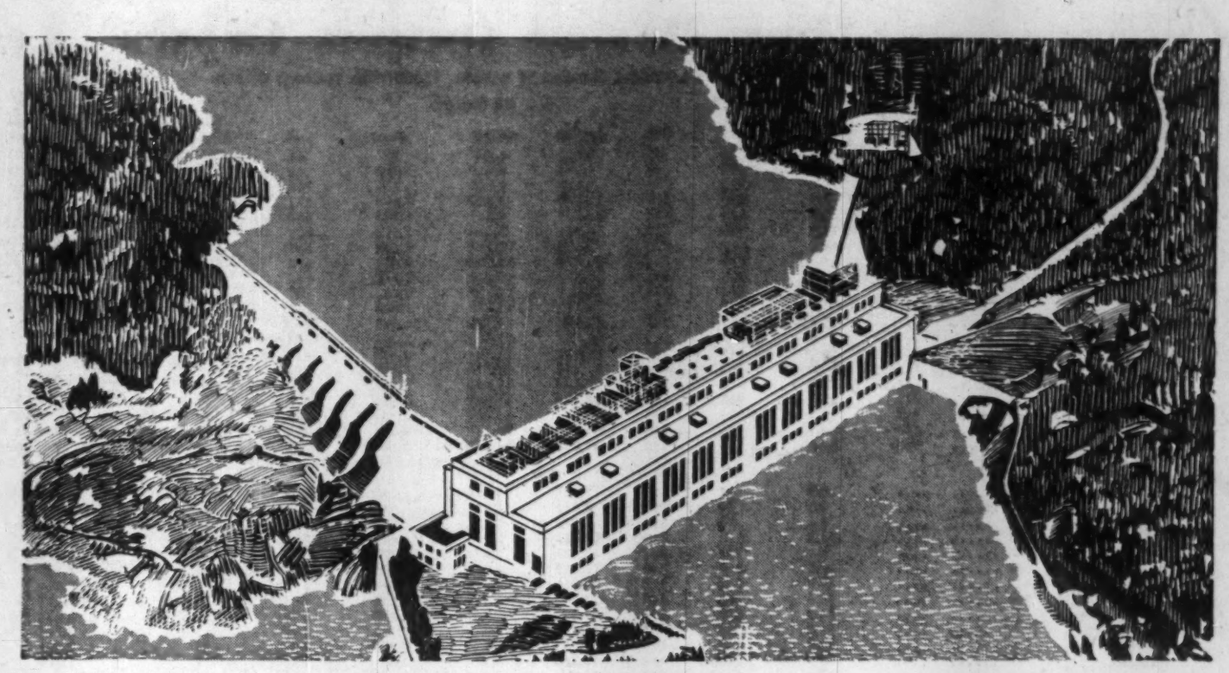
Photocell Controls are preferred in small municipalities. Some 50% of the communities covered in the survey use photo cells to switch their street lights. On a basis of street light miles, however, the proportion of photocell control drops to 21% with 68.5% controlled manually. Time clock control is in third place as a preferred method, with 27.7% of communities controlled in this way.

$20 million to be spent in five years: Within the next five years $7.4 million will be spent to continue the job of improving existing street lighting. Part of this will be spent in changing from series to multiple lighting, but the bulk of it will go to modern luminaries, both incandescent and mercury.

New subdivisions and streets will require 2,300 miles of street lighting in the next five years, at a cost of $12,730,000. Most of this will be incandescent (73% of installations), about 25% will be mercury vapor and less than 2% will be fluorescent.

LONGEST POWER LINE

In 1902, an 85-mile high-tension electric line which ran between Montreal and Shawinigan was considered to be the longest power line in the world.



This river does 30 million good turns a day!

ALLIS-CHALMERS Equipment for the Power Industry

Every day, around the clock, this and many other mighty rivers across Canada turn giant turbines at high speed in the production of hydro-electric power so vital to Canadian industry, business and homelife. And every year sees new power developments — both hydro and steam turbine — brought into production to meet the ever-increasing needs of our expanding economy.

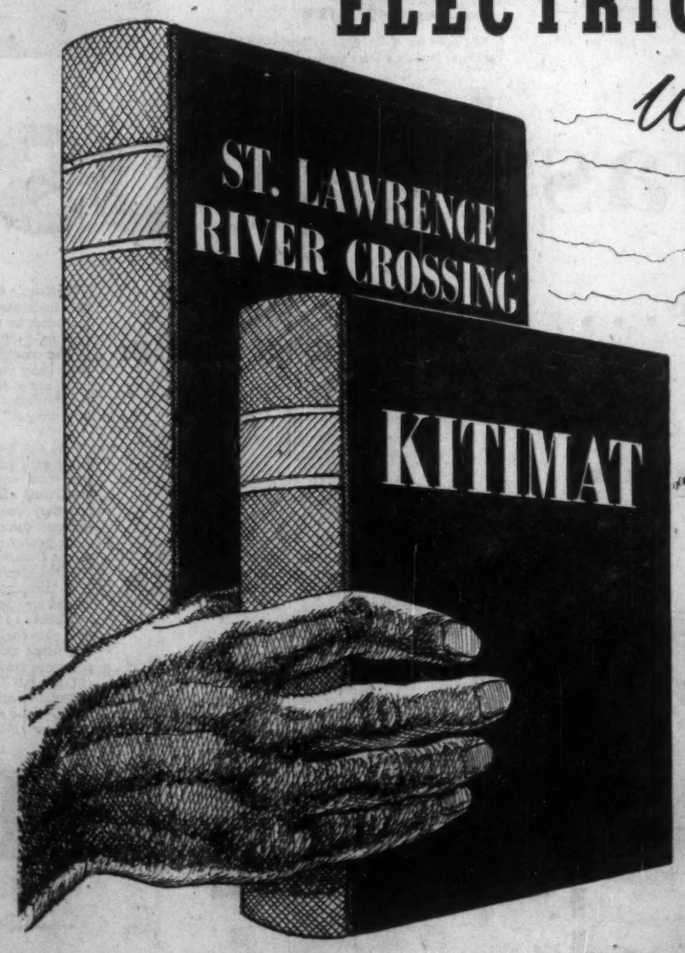
Allis-Chalmers is one of Canada's leading suppliers of equipment for the power industry, with steam and hydraulic turbines, rotary and butterfly valves, surface condensers, pumps, blowers and compressors, motors and many other products on the job in installations from one end of the country to the other.

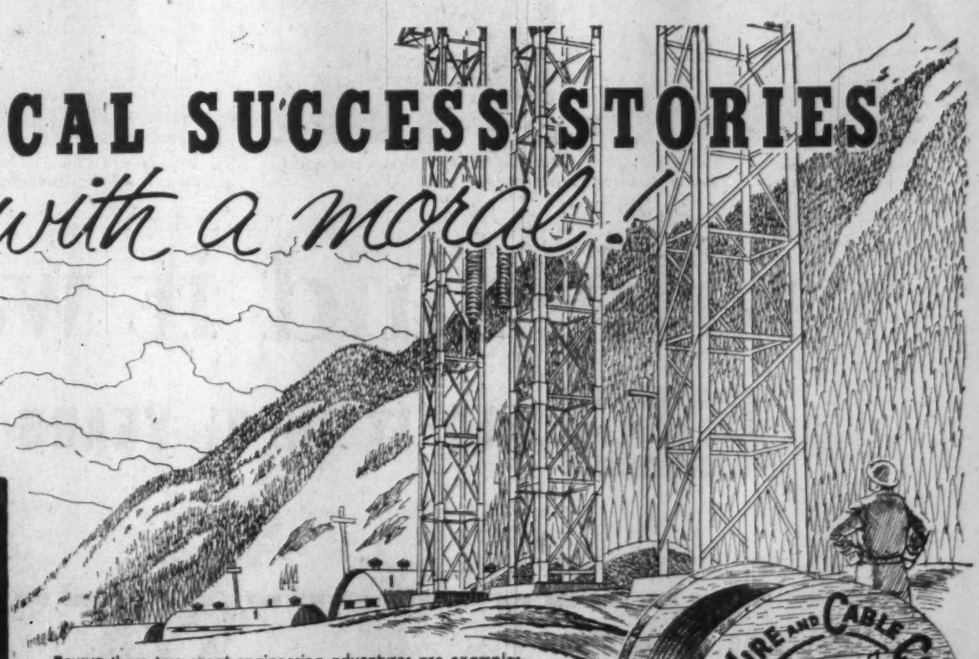
In fact there's hardly an industry contributing to your better living today that isn't served at some point by Allis-Chalmers. For further information contact Canadian Allis-Chalmers Ltd., P.O. Box 37, Montreal, Que.

MADE IN CANADA

CANADIAN ALLIS-CHALMERS

ELECTRICAL SUCCESS STORIES with a moral!





BEHIND these two great engineering adventures are examples of the countless high voltage power transmission problems that Canada Wire engineers have solved.

For Kitimat, they designed, manufactured and installed a 301 kv all-Aluminum Sheathed Cable . . . largest of its type in the world . . . to transmit power to the high voltage switchyard at Alcan's Kemano River Basin.

When the St. Lawrence River stood as a barrier to power transmission . . . 32 miles underwater . . . from the North Shore to the great Gaspe copper mining area, Canada Wire pioneered in the design, manufacture and installation of one of the world's largest high voltage submarine cable systems.

The moral of these stories is: *Canada Wire engineers have the experience to solve the most complex high voltage power transmission problems.*

TRADE MARK REG'D.

CANADA WIRE AND CABLE COMPANY LIMITED

FACTORIES: TORONTO, MONTREAL, PORT GARRY, VANCOUVER SALES OFFICES FROM COAST TO COAST

A CANADIAN COMPANY MANUFACTURING AND SELLING COAST TO COAST

Poor Wiring Takes Heavy Cash Tolls

The heavy toll of life and property damage across Canada caused by fires due to defective electrical wiring shows no sign of diminishing. Despite unremitting efforts by government departments, the electrical industry and other agencies, only a slight dent has been made in public awareness of the dangers inherent in faulty or inadequate installation.

Last year, it is estimated by the Dominion Fire Commissioner's Office in Ottawa, the total loss from fires attributed to electrical faults was $10,825,587—an average loss in the 6,563 electrical fires which occurred across the country of nearly $16,500.

And that figure takes no account of the loss of life and unhappiness which the fires entailed. In various areas, regulations are being tightened up. One example this year was the adjustment in Ontario of the Fire Marshal's Act which gives his representatives the authority for re-inspection of electrical installations in buildings. It helps to fill in the dangerous gap where older buildings with possible defective wiring are overlooked.

But many people feel that the regulations should be tightened up much more severely. Presently, inspection of new homes and other property is concerned with the correctness of the installation rather than its capacity and the load it may ultimately have to carry. Later, when the number of appliances in use on a given service increase and the do-it-yourselfers step in with fuses that are too big or substitute fuses, the danger becomes an ever-present menace.

Gaining Ground Slowly

Recent reports indicate that the long and lively campaign for what its sponsors call "adequate wiring" in homes is winning some ground. That is something beyond the general 60-amp. service of the present day, and an increase in the number of circuits to carry the growing number of appliances and other electricity consumers which families are using.

When increased use of appliances puts an overload on too few electric circuits, the latter become overheated, char the insulation and eventually cause fire. If the further abuse follows of using 30-amp. fuses when safety requires not more than 15-amp. fuses, the hazard rises accordingly.

About 80% of Canada's new homes are fitted with 60-amp. capacity systems, yet these will not carry loads which are becoming more and more common. A 60-amp. service, for instance, will not operate a dryer and any electric range together at full capacity, nor will it take a small air conditioner, a circulating hot water heater and a range simultaneously.

Yet the solution is simple. Full use of all appliances can be enjoyed with efficiency and economy where the wiring system is adequate.

Free Advice Offer

Electric Service Leagues, maintained by the electrical industry across the country, give free advice and inspection to any householder seeking it and will certify with a Red Seal guarantee any home fitted with a 100-amp. service, and which conforms to certain other specifications.

Behind this demand for installations which would make it unnecessary for the unwary householder to risk overfusing,

(Continued on page 68)

How Power Output Grows

CENTRAL ELECTRIC STATIONS IN CANADA, PRODUCTION, MILLIONS OF KWH

ALL UTILITIES

	Nfld.	P.E.I.	N.S.	N.B.	Quebec	Ontario	Man.	Sask.	Alta.	B.C.	Yukon N.W.T.	Canada
1920	....	1.0	34	26	1,915	3,057	207	48	114		493	5,895
1925	....	1.6	60	42	4,044	4,519	516	66	130		731	10,110
1930	....	3.5	223	333	8,823	6,161	960	168	204		1,218	18,094
1935	....	5.1	389	390	12,629	6,653	1,095	381	208		1,528	23,383
1940	....	8.3	444	470	16,011	8,841	1,366	556	274		2,138	30,109
1941	....	11.9	480	533	17,741	9,636	1,515	602	320		2,473	33,318
1942	....	13.1	517	490	20,804	10,182	1,630	651	419		2,639	37,355
1943	....	14.6	579	506	23,478	10,309	1,754	696	513		2,624	40,480
1944	....	16.0	583	522	23,278	10,539	1,778	685	555		2,630	40,599
1945	....	16.8	600	599	22,227	10,737	1,852	667	567		2,850	40,130
1946	....	16.7	590	593	23,597	10,778	1,928	718	602		2,899	41,737
1947	....	20.4	617	592	25,930	11,192	1,998	763	641		1,637	43,424
1948	....	21.9	678	592	24,567	11,096	2,056	805	724	1,820	31	42,390
1949	201	25.0	717	651	25,531	11,324	2,160	858	801	2,105	45	44,419
1950	147	29.0	762	696	27,323	12,719	2,449	903	869	2,535	59	48,494
1951	172	32.8	888	756	29,690	15,985	2,564	979	997	2,723	64	54,852
1952	233	35.9	965	753	32,113	17,298	2,699	1,079	1,174	2,987	72	59,409
1953	251	39.4	1,026	746	33,794	18,268	2,754	1,174	1,340	3,382	86	62,861
1954	280	42.5	1,120	900	34,098	20,143	3,011	1,292	1,498	3,486	65	65,936
1955*	660	50.0	1,200	850	35,250	24,500	3,100	1,400	1,700	4,600	90	73,400

PRIVATE

1920	....	0.9	32	24	1,895	1,868	93	1	64		479	4,456
1925	....	1.3	16	24	4,012	1,424	258	2	73		713	6,524
1930	....	2.8	75	310	8,775	1,753	600	67	147		1,206	12,937
1935	....	4.3	168	349	12,583	2,058	648	283	156		1,514	17,768
1940	....	7.1	215	392	15,931	2,026	778	440	172		2,124	22,277
1941	....	9.0	257	546	17,659	2,392	927	475	194		2,458	24,794
1942	....	9.9	280	395	20,582	2,292	996	512	278		2,624	28,177
1943	....	10.6	293	403	23,258	2,488	1,099	544	371		2,607	31,080
1944	....	11.6	335	408	17,861	2,451	1,109	525	361		2,612	25,687
1945	....	12.3	341	477	17,670	2,200	1,168	500	353		2,795	25,531
1946	....	13.2	342	458	18,958	2,205	1,209	539	407		2,851	26,997
1947	....	16.7	350	438	20,780	2,274	1,246	520	432		1,574	27,665
1948	....	17.6	406	388	18,821	2,044	1,270	534	489	1,697	31	25,697
1949	201	19.4	443	436	19,530	1,766	1,347	565	476	1,919	29	26,731
1950	147	22.0	499	463	20,646	1,686	1,617	566	500	2,252	33	28,431
1951	172	24.2	538	494	22,228	1,746	1,697	587	634	2,316	33	30,469
1952	230	28.7	569	443	24,189	1,818	1,668	625	851	2,424	35	32,882
1953	248	31.7	611	417	25,146	1,799	1,883	648	938	2,653	36	34,411
1954	275	34.0	665	508	25,755	1,853	1	665	984	2,628	14	33,383

PUBLIC

1920	....	0.1	1	1	19	1,189	114	47	58		15	1,438
1925	....	0.3	41	17	32	3,091	258	65	56		18	2,578
1930	....	0.7	147	22	48	4,408	360	99	57		12	5,154
1935	....	0.7	221	41	45	4,595	447	98	52		15	5,515
1940	....	1.2	229	78	80	6,815	588	116	102		14	7,822
1941	....	2.9	243	87	92	7,244	588	127	126		15	8,524
1942	....	3.2	239	95	222	7,890	634	139	141		15	9,178
1943	....	4.0	284	103	216	7,820	655	152	142		17	9,394
1944	....	4.3	248	114	5,411	8,087	669	160	194		18	14,910
1945	....	4.4	260	121	4,557	8,536	684	167	214		55	14,599
1946	....	3.5	248	135	3,639	8,573	719	179	195		47	14,230
1947	....	3.7	267	154	5,150	8,917	752	243	209		63	15,759
1948	....	4.3	271	204	5,746	9,051	786	271	235	123	..	16,692
1949	1	5.6	274	215	6,001	9,558	812	293	325	186	16	17,686
1950	....	7.1	264	233	6,667	11,031	832	337	369	283	27	20,061
1951	....	8.6	350	262	7,462	14,238	868	392	363	407	30	24,380
1952	3.4	7.2	396	309	7,924	15,479	1,031	454	323	563	37	26,525
1953	3.0	7.8	415	327	8,647	16,467	871	526	402	729	51	28,445
1954	5.0	8.5	455	391	8,343	18,290	3,010	627	514	858	51	32,552

Source: Dominion Bureau of Statistics "Central Electric Stations."

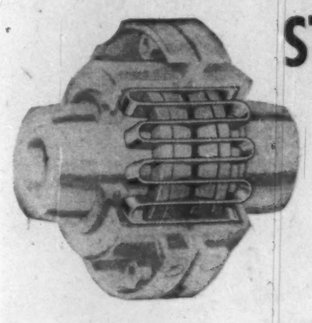
*Estimated from D.B.S.'s Monthly Bulletins "Central Electric Stations."

June, 1956.

Faulty Wiring Bill: $10.8 Mill.

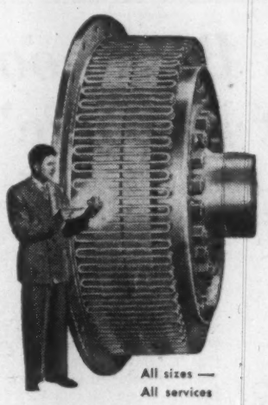
	No. of Fires (electrical)	% of Total Fires	Dollar Loss Electr. Fires	% of Total Fire Loss
1950	5,609	9	$17.2	21
1951	5,513	9	$ 8.3	10
1952	5,586	8	$10.8	10
1953	5,768	8	$ 9.0	10
1954	6,074	8	$10.4	11
1955	6,563	8.6	$10.8	10.5

Annual Reports— and FALK STEELFLEX COUPLINGS



These two are directly connected. You annually write off wear and tear on plant equipment. FALK Steelflex Couplings definitely prolong the effective life of connected machines. This saving shows in your financial statements.

FALK Type F Steelflex Couplings transmit power in a smooth, even flow. They absorb shock. They dampen vibration. The torsional resilience of the Steelflex grid-groove assembly prevents unnecessary replacement and repair of equipment.



All sizes — All services

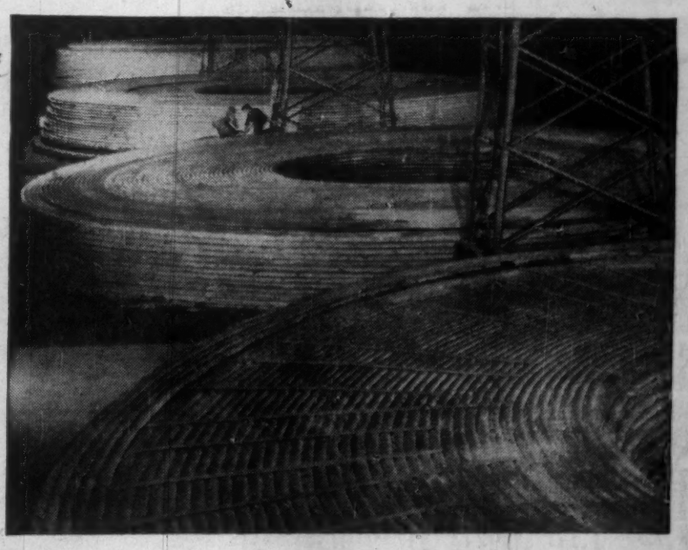
STANDARDIZE ON FALK STEELFLEX COUPLINGS

Type F Steelflex Couplings are applicable to 90% of industrial requirements. Special Steelflex couplings are available for the other 10%.

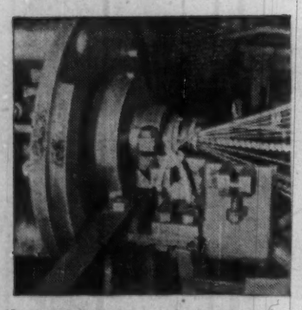
FALK Couplings are available in full range of capacities. All sizes generally used in industry carried in stock for prompt delivery.

THE WILLIAM KENNEDY & SONS LIMITED
A DIVISION OF MILLSPAUGH LIMITED, SHEFFIELD, ENGLAND
OWEN SOUND, ONTARIO

Montreal: 1224 St. Catherine St. West — St. Catharines: 50 Church Street — Haileybury: John H. Brumell

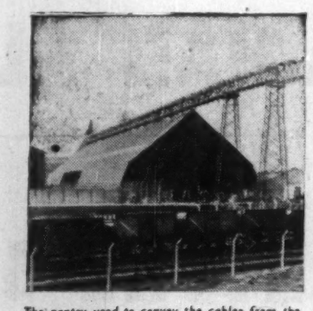


Interior of the storage shed showing the lengths of cable coiled down prior to loading.



The first forming die; copper wires are applied to the hollow gas duct to form the conductor.

Galvanised steel armouring wires being applied for protection.



The gantry used to convey the cables from the storage shed to the "Ocean Layer".

Coiling down one of the long lengths of cable for Vancouver into the storage shed.

Some said it was 'IMPOSSIBLE!'

BICC DID IT IN 2½ YEARS . . .

THIS WAS THE PROBLEM:

The British Columbia Electric Company required a 120 MVA power link between the mainland and Vancouver Island. The transmission scheme recommended included, as the main crossing, the provision of five 138,000 volt submarine cables *each in a continuous length of over 15 miles.*

The manufacture, transportation and laying of such cables was considered to be practically impossible by many in the electrical world.

"Look at the manufacturing difficulties," they said, *"the continuous lengths of strand; the insulation to be applied; the problems of continuous lead sheathing and subsequent armouring!"*

THIS WAS THE ANSWER:

After very careful consideration of the problems involved, BICC submitted a tender and were awarded the contract. New plant was designed and installed in one of the Group's factories close to the Manchester Docks. As the cables left the production line they were carried by means of a 45 feet high gantry with power winches, to an adjacent storage shed where they were fully tested. Thence, by a continuation of the same gantry they passed over the docks area to be coiled down into the cable tanks of the *Ocean Layer*—the World's most up-to-date cable-laying ship.

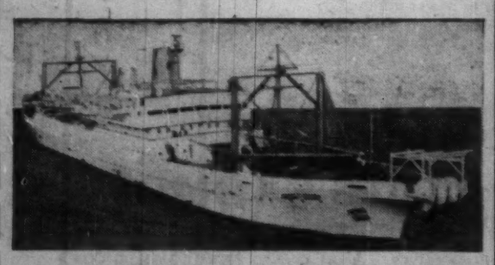
Now, after only two and a half years, this joint Anglo-Canadian undertaking has been completed. The cables have been manufactured, laid, connected and commissioned on schedule.

Thanks to the courage and enterprise of the British Columbia Electric Company and the engineering ability of the BICC Group, the swiftly-growing and highly important timber, pulp and paper industries of Vancouver Island can now obtain adequate power from the hydro-electric generating stations on the mainland.

Only BICC had the resources, the capital and the confidence to undertake and complete such an ambitious project—worth three and a half million dollars. *Only BICC have the facilities to do this again. To manufacture long continuous lengths of power cable—and install them anywhere in the World!*

THE "OCEAN LAYER"

The 4,600-ton "Ocean Layer," most up-to-date cable-laying ship in the World, was specially chartered for this project. It is the first British ship to be fitted with a Pleuger active rudder, housing an auxiliary propeller. The Pleuger rudder greatly increases manœuvrability, essential in cable-laying work.



THE 138kV CABLE

Four inches in diameter and weighing 52 lbs. per yard, this is a single-core, 0.35 sq. in. hollow core copper conductor, gas-filled cable, operating at a three-phase voltage of 138 kV with a gas pressure of 300 lbs./sq. in.

BICC CABLES

THE name for cables-everywhere

BRITISH INSULATED CALLENDER'S CABLES LIMITED
21 BLOOMSBURY STREET, LONDON, W.C.1, ENGLAND

Look West for 'Real' Market

By J. R. SARSFIELD

The real market for electrical appliances in the Prairie Provinces has still to be developed. There is much more to be found beneath the first flush of cream.

But this market is changing. What is ahead in the next 10 years? And then the 10 years after that? What will be the market in 1970?

These were the points made and analysed to the farm electrification committee at the Canadian Electrical Manufacturers Association recent annual meeting in Niagara Falls. The speaker was J. R. Sarsfield, business manager, Saskatchewan Power Corp. Here is a digest:

Since 1945, when the first farm electrification program got under way, about 115,000 farms have been electrified in the three prairie provinces. While there are still a few thousand more farms to build, the real job ahead is that of load building.

In preparing this report, I have conferred with people in the utility in Manitoba and in two of the utilities in Alberta. We are all in agreement. A very good job of electrical appliance supply has been done since the start of our farm program, but now that the end of this expansion program is in sight, the future needs charting.

I would like to consider our future in two periods of ten years each. The first one, the next decade, we can clearly define. The second decade, we must design.

Let us first look at the prairie electrical market for the next ten years. In so doing, let us keep in mind the estimate of the Indian on a forthcoming cold winter when he based his predictions on "White man put in lots of coal."

The Prairie market for electrical goods during the next ten years will be a healthy one because we have put on lots of coal so to speak, and are steaming along on high gear. We believe, therefore, the Prairie market of electrical goods will follow a healthy, economic climate which consists of, so far as our joint interests are concerned:

- An unsatisfied need for electrical appliance and equipment on the 115,000 farms now electrified. This is a fill-in program.
- The extension of the farm electrification programs in Saskatchewan and Alberta to their ultimate as has been done in Manitoba. This should be easily completed within the next five years or less, since by far the majority of potential farms is now electrified. It is likely the unserved farms will be completed on an annually declining program.

Electrical output is also an excellent gauge of general economic conditions. In Saskatchewan, we anticipate a really tremendous increase in electrical load during the next ten years. Our load is doubling every four years. General agriculture prosperity, our electrification program and our infant industrialization has made this actual.

I suggest that an individual get-acquainted program to understand Saskatchewan's place in the future, will pay good dividends.

Other interests are not overlooking Western Canada and the type of development taking place. I urge the members of CEMA to take a close look. In fact, now is the time to purchase land for future factory sites, even if at the present immediate sights are only on larger warehousing or perhaps some assembly work.

The market for electrical appliances in the next ten years will be maintained by:

(1) The completion of the farm program in five years;

(2) By the fill-in market and to some extent by a growing replacement market;

(3) A forgotten market which should be developed.

Forgotten Markets

In the opinion of each of the utilities on the prairies, there is a big market prime for development. This is a basic requirement which, while large in itself, will trigger a new approach to electrical living on our farms. Each utility has expressed this trigger market to be a water systems promotion.

Very little really hard work has been done to meet this need. In fact, we have been doing a cream skimming, selling job, on all our appliance items. Profitable, but after the first flush of freshening the cream loses some of its butter fat, even though there is lots of bulk milk below the cream.

The first flush of electrical equipment and appliances has been repeated during each year's farm program. Following is the statistical position of appliances as taken from our utility's figures:

(a) **Household Uses**	of the farms
Refrigerators	73.8%
Electric Ranges	33.7%
Water Systems	30.3%
Home Freezers	26.1%
Oil Burners	23.5%
Water Heaters	17.9%
Electric Dryers	1.7%
(b) **Farm Uses**	of the farms
Work Shop Tools	49.3%
Water Pumps	39.3%
Brooders	27.1%
Milking Machines or coolers	8.3%
Welders	7.9%
Grain Grinders	2.5%

The wide variation of appliance sales indicates the satisfaction of a primary need. As this expense has been lived out, the secondary desires are there to be satisfied. The key, however, to this secondary market is to unlock the water systems door to a modern home.

The modern farm home means water on tap just as it does in the city, running water in the kitchen and bathrooms, motors on the pump, electrical water heaters in the water line. This is the first stage of an electrified farm kitchen.

Money in large volume is available for water systems promotion through the Farm Improvement Loans Act. In 1955, 61,000 loans for $69 million included:

—51,000 implement loans totaling $58 million.

—3,000 building loans totaling $4.9 million.

—4,400 livestock loans totaling $3.5 million.

—1,300 improvement and development loans totaling $2 million.

In ten years $583 million has been loaned mostly for 360,000 tractors, combines and trucks. Let's get our share of this high volume market in the next ten years.

Most prairie utilities do not merchandise, but all will cooperate to the ultimate on a water systems promotion.

You say: "All this may be true but agriculture is still your basic resource and we have seen difficult agricultural conditions on the prairies before—what then if they should reoccur?"

What About Weather?

I would like to comment on this for a moment, not because I am in any way a specialist on agricultural economic conditions, but because I live there and can tell you what I have seen.

Granted, the weather is the determining factor in agricultural economics, but only if we get an excess of drought, flood, heat or cold. Excesses do not often occur, seldom in annual succession, the moderate difficult conditions man has overcome. Labor, of course, is the first thing that had to be solved. You all remember the tremendous annual harvester trains going west. These you see no more. Millions of horsepower in land tillage and harvesting equipment almost guarantee successful farming operations.

Power on the farm, like power in the factory, is required for successful operation. Now electrification closes the gap of energy shortage to balance the farm home and farm yard with the power supplied in the cultivated area.

This energy supply coupled with the tremendous contribution of agricultural scientists in every branch guarantees the success of farming on the prairies as a producing unit. I discreetly leave the discussion at the producing stage with the prayer that the same success will attend our marketing problem.

Whatever difficulties the marketing of our produce may entail, the fact still remains, business has been good, in spite of these difficulties. The figures given on Farm Improvement Loans indicate our advertising and our sales effort has fired a blank at this important target. Business could have been better in the past and will be better in the future if our sights are raised.

Before passing on to an observation on the second decade: What about the competition natural gas will give the electrical manufacturers?

We are in about the best position of anyone to observe the impact of natural gas. We are a dual corporation. We serve 125,000 retail customers of whom 40,000 are farms. As well, we supply power in bulk for two cities.

Since 1953, we have been an active natural gas utility serving Saskatoon, Prince Albert, and 14 additional towns and villages. This year, for example, we have also completed the distribution systems in the cities of Moose Jaw, North Battleford, and Swift Current and, in addition, at least ten other towns and villages.

With 15,000 natural gas customers at the end of 1955, we will have run an additional 9,000 service lines by the end of this year.

Here is a report on natural gas appliances installed on our system as at September 15, as derived from a 20% sample:

Table 1
Saturation of Appliances per Customer

Appliance	%
Space Heating	91.6
Furnaces	83.4
Space Heaters	8.2
Water Heating	75.2
Cooking	36.0
Other Uses	1.1

Table 2
Breakdown of Customers by Number of Appliances

	%
Customers using 1 appliance	23.3
Customers using 2 appliances	51.2
Customers using 3 appliances	23.9
Customers using 4 appliances	1.6
Customers using 5 appliances	.0
All Customers	100.0

Average: 2.0 appliances per customer.

I look forward to annual programs at least as large as the 1956 program for many years to come.

Here is competition becoming more formidable, year by year. As electrical suppliers (energy and appliances) it is a fact with which we must contend. The truth is, both forms of fuel play a complementary rather than a conflicting role.

The community is enriched by increasing supplies of energy. Neither can lose by an increase in the supply of the other. True it is that at some points competitive conflict does arise. Let these points sharpen our efforts. There is much more good to be gained than can be realized, far less harm to be experienced than anticipated. Natural gas has a place in the future.

I do not want to leave this picture without pointing out some of the necessities for a successful design of the second decade.

I will discuss this with only two main points. To deal adequately with designing the second decade we must begin now to shape events to a pattern we have already designed. If we do not, when we reach that point, we will find all we have is a design with no real substance.

A successful volume of electrical appliance and equipment sales in the second decade must be predicated on "New uses for more customers." Just as the success of the first was dependent upon the extension of electricity to farm customers, we must pattern the second decade on the creation of additional markets with more customers to be served.

We, in Saskatchewan, are not greatly concerned about a decline in economic prosperity in the next 10 years. We have, we are certain, within our grasp, an accelerating prosperity. We are sure of the next decade.

Being sure, we are not asleep to the need of designing now for the second decade. We are determined we will see it also defined as a continuation of our present prosperity. What we must look for is more people and more kilowatts of energy for more people. That is the proof of the pudding, but what are its ingredients?

We think we have the recipe, and the ingredients ready to be put together. Land and water, with people to utilize them, make pretty good ingredients to get together something appetizing. Saskatchewan has them. Saskatchewan, the wheat province, is noted for having the best agricultural land anywhere. But here, in the bread basket of Canada, something is lacking.

Given good land, an energetic population, prosperity is always guaranteed providing one more ingredient is also present to be used when needed: Water.

Saskatchewan has water all right. Every spring, great floods of water flush to the sea. Saskatchewan, however, needs water control.

Of Canada's 3.9 million homes. . . .

- **95% don't have a freezer**
- **72% don't have an electric sewing machine**
- **61% don't have a TV set**
- **57% don't have an electric stove**
- **48% don't have a vacuum cleaner**
- **30% don't have a telephone**
- **25% don't have an electric refrigerator**
- **21% don't have an electric washing machine**

We Spend Big for Appliances

	Expenditure on Electrical Appliances $ million	Percent of total Spending on Durables %
1939	32	10.9
1944	36	12.2
1953	255	14.2
1954	238	14.2

"The intelligent advertising space buyer never judges a business paper by its circulation alone. In deciding what business paper to use and which not to use the most important consideration goes to editorial appeal. In every survey I have ever seen on the subject, editorial appeal is placed far ahead of all other considerations."

Julien Elfenbein says this in his textbook Business Paper Publishing Practice. The quotation has a real meaning for those who buy space in the electrical industry.

Electrical Contractor of Canada has from the outset done an editorial job which has won unusual acceptance throughout this field.

Through deeply researched articles we are month after month bringing to light underlying problems in this industry and with the co-operation of leading electrical men finding solutions to these problems . . . and increased sales of electrical equipment.

When you are considering media in the electrical field make sure you have the exciting story of Electrical Contractor. Familiarize yourself with the significance of our findings in the rewiring market. Information which has resulted in editorials in over 150 daily and weekly newspapers from coast to coast and our editors being interviewed on TV and radio.

Let us give you the facts on our lighting survey, our part in the formation of a national electrical contractors' association and the complete editorial story.

This is the editorial effort which this year won for Electrical Contractor the Kenneth R. Wilson Memorial Award, presented to the Canadian business publication which achieves the highest standard of journalism.

Yes, you owe it to your clients to evaluate Electrical Contractor's editorial content. Our representative will be pleased to discuss it with you.

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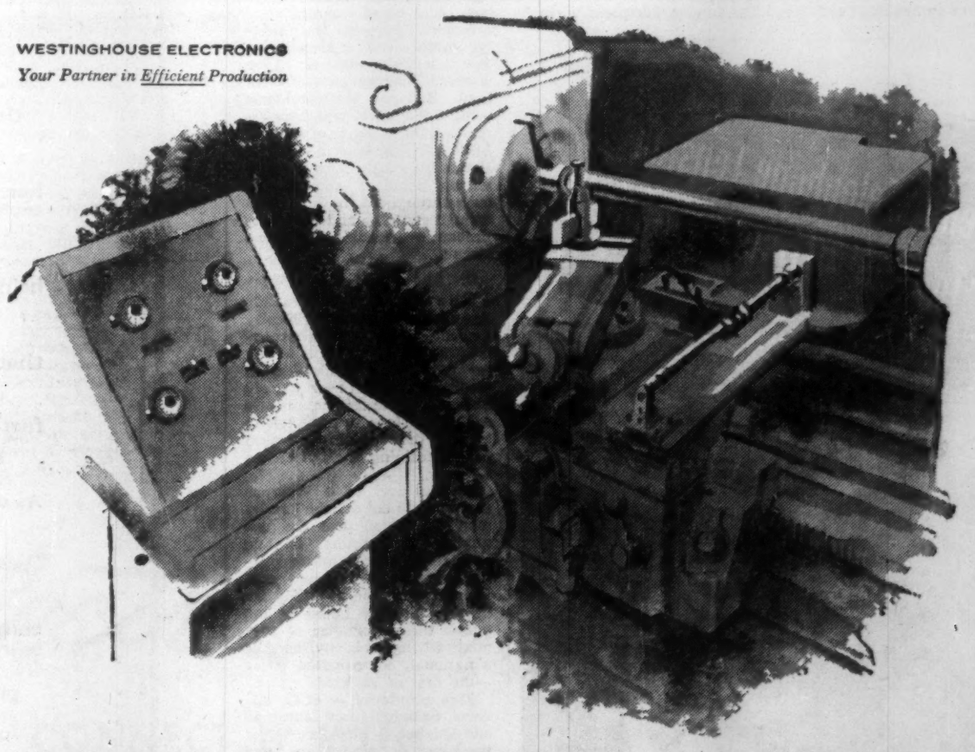

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Here's Look at Electric Future

Canada's electrical manufacturing industry is in a state of transition.

Its growth rate has greatly outstripped the growth of the Canadian economy as a whole. Today it employs 75,000 people, pays them more than $250 million a year, turns out products valued at about $1.1 billion annually.

What's ahead for this fast-expanding industry?

Here are summaries of forecasts of the future of one of our key industries, as presented in briefs to the Royal Commission on Canada's Economic prospects.

H. M. TURNER, President, Canadian Electrical Manufacturers Association:

In this electrical age Canada stands out as one of the most favored nations of the world, with vast resources of waterpower, oil, coal, natural gas and uranium. Measured **per capita,** Canadians lead the world in the consumption of electricity, using approximately half as much again as the Americans, and over three times as much as the British.

With electrical consumption increasing in Canada at a rate of 6% per year since the end of the Second World War, there has been a vast new construction of general facilities. With the projects now under way, or planned, for the next three years, we are reasonably assured of the doubling of Canada's generating capacity in the decade 1948-58.

It is the expectation, based on the many serious studies made of this subject, that the demand for electrical power in this country will double in the decade immediately ahead of us and quadruple in the coming quarter of a century.

Much of the new generating capacity — particularly in Ontario — will be thermal. That is, it will be fired by coal, oil, natural gas or atomic fuel. The electrical manufacturing industry expects to participate to the full in this development, but this will require considerable new capital investment.

The Canadian electrical manufacturing industry is looking forward to an expansion in the next quarter-century which should dwarf anything it has experienced in the past, always providing that the economic climate is favorable. At the time when the country itself is growing, great new developments are promised in the electrical field; and both these trends are backed by the assurance of a continued supply of cheap electrical power.

Canada still has large reserves of usable hydro power; and that hydro power promises to remain the cheapest source of electricity for the foreseeable future.

In the Maritimes and on the Prairies, and notably in the industrial province of Ontario, where the available hydro power has been largely used up, the development of thermal power is well under way. Coal will be used increasingly for some years, although in plants incomparably more efficient than those of a generation ago.

But the advent of atomic electricity is signalled by the Nuclear Power Demonstrator project at Des Joachims, now in preparation. **Canadian General Electric Co.** has joined in this venture with Atomic Energy of Canada and the Ontario Hydro Electric Power Commission.

Increasing urbanization will mean more intensive electrification, more appliances in the home, more need for electric service, street lights and transportation. This promises to maintain the recent heavy rise in home use of electricity, which has been increasing by 12½% per year in recent years, and consumer purchases of electrical goods, which have reached 40% of the industry's production.

Though Canadian homes use considerably more electricity than do American homes, they can only be considered one-quarter electrified today. Exclusive of heating, a fully electrified home would take some 12,000 kilowatt hours per year. Providing adequate wiring for all this will, in itself, become a major task. Air conditioning is due for great development, as is the heat pump, for heating in winter and cooling in summer.

The tiny transistor will bring in portable television, and the first real pocket radio, which could become as indispensable as the wrist watch. We look for the development of the light amplifier and the use of magnetic tape instead of film for movie projection.

Many minor wonders, such as the semi-conductors, new magnetic materials and new insulations are now being put into use. Great new industries to produce the "wonder" metals, titanium and zirconium, will be developed.

The projected quadrupling of Canada's electric power generation in the next quarter century — as envisaged by Dr. Richard Hearn of Ontario Hydro — will call for vast quantities of generating and transmitting equipment. Looking beyond that, and beyond "conventional" atomic power, to the taming of the hydrogen reaction, the best guess of some engineers is that this will be done by use of an electrostatic or electromagnetic field.

In other fields, the development of the long-distance dial telephone is calling for a great deal of new equipment, as is the growing use of microwave stations and relays and radar beacons. And in our automobiles the amount of electrical equipment is increasing steadily, until it promises soon to cost more than the engine.

J. H. GOSS, President, Canadian General Electric Co.:

We foresee a doubling over the next decade in both the use of electricity and the generating capacity to produce it. We believe that this rate of growth will continue over the next two or three decades.

The expected expansion in every phase of industry, extractive, primary and secondary, combined with an increase in mechanization, both semi-automatic and automatic, will continue to require a larger relative content of electrical equipment than heretofore. We foresee a greater number of electrical appliances per home, both in existing homes and in those that will be built each year.

The growing shortage of domestic help makes the home owner look to motorized and other electrical appliances as a substitute. More people will be using more electricity both at home and at work. In order to satisfy the increased demand for electricity, producers of electricity will have to continue to expand their generating facilities.

Ten years ago the ratio of the output of the electrical manufacturing industry to Gross National Product was about 2%. Currently it is running around 4% and, by 1965, we anticipate a further ratio increase to approximately 6%.

Assuming GNP reaches $40 billion in 1965 as has been forecast, this indicates the electrical manufacturing industry will have a production of about $2.4 billion.

Canadian General Electric's proportion of the total electrical manufacturing industry, maintaining its present ratio, would be a volume business of more than double our 1955 shipments.

If our company is to meet this substantial increase in business, we must be realistic. We must think and plan ahead.

In each of our several operating departments, we forecast our volume of sales year-by-year over the next 10 years

(Continued on page 70)

Bad Wiring Costs Cash

(Continued from page 66)

is a strong body of opinion. Such bodies as Central Mortgage & Housing Corp., Ontario Hydro, the U. S. National House Builders Association and other organizations back it. But for the sake of less than $50 a house, it is having to fight hard for general adoption.

The difference in cost between a 60-amp. service and a 100-amp. service has been estimated at between $35 and $50, yet many builders and contractors still believe it worthwhile to save that amount in the fierce competitive conditions of new homes today. Come the day, probably within a few years, when these new houses will have to be rewired to meet occupants' electrical needs, the bill will be anything from $200 to $500.

The key to adequate wiring is the point at which power enters the home. That's where the capacity is fixed.

But the circuits within the property are equally vital. Depending on the size of the home, from eight to 12 or more circuits may be needed plus one for the range and others specially for major appliances like water heaters, laundry equipment, work bench equipment, and home freezers.

General purpose and lighting circuits have a capacity of about 1,650 watts or 2,250 watts depending on the wire used. But one electric kettle using 1,500 watts will take almost all the capacity of a whole 1,650-watt lighting circuit. Hence the reason why modern wiring demands enough circuits throughout the home and enough switches and outlets to prevent overloading of any one circuit.

More Rigid Checks

The Electrical Contractors Association of Ontario recently presented a brief to Attorney-General Kelso Roberts asking for more rigid inspection of electrical work in new and old buildings. The association also asked for steps to be taken to ensure the qualification and proper training of all electrical workers.

It was part of a vigorous campaign to cut out the handyman electrician and the unqualified contractors. In line with this another major publicity campaign is being contemplated by the electrical industry to bring home to the public the importance of adequate wiring. It is envisaged as a national, co-ordinated effort —the first of its kind.

Five provinces — B. C., Alberta, Saskatchewan, Manitoba and Quebec — have provincial licensing of electricians and their contractor employers. In Ontario, where there are more electricians and electrical contractors than in any other province, and where electrical fire loss is greatest, there is only scattered city control, some of it providing licences without examination on payment of a cash sum.

Electrical regulations in every province demand that a permit be secured before any change is made in wiring, and that the wiring adjustments must be inspected before they carry any power. But frequently, the home owner or part-time contractor does the job with neither permit nor inspection.

This is the continuing appeal from fire-prevention authorities: If your home or factory or other building hasn't had the wiring checked in the last ten years—get it done now. If you have added to the electrical load to any real extent recently, call in a contractor to check the circuits.

It's the kind of appeal that is getting more attention now than it has ever done, thanks to the work of organizations like the Canadian Adequate Wiring Bureau, the Service Leagues and fire-prevention organizations. But the majority of people are still not heeding it.

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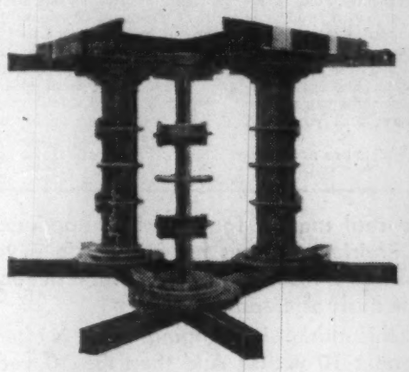

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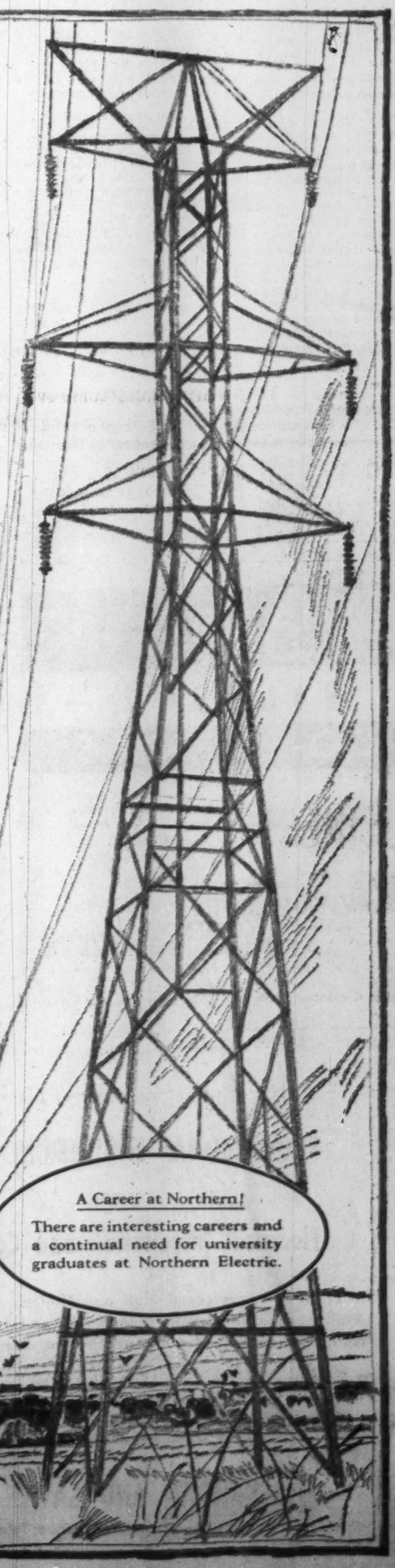

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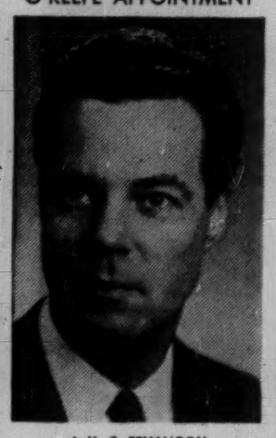

J. H. C. PENALIGON

T. E. Arkell, President of the O'Keefe Brewing Co. Limited, announces the appointment of J. H. C. Penaligon as Advertising Manager. Mr. Penaligon has had extensive advertising experience in the brewing and food industries.

FEW BOY SCOUT GUESTS OF CANADA at the 1955 Jamboree had a chance to see the great dams and smelters that make Canada a world supplier of aluminum.

But some did see a Canadian use of the light metal: outdoor cooking with aluminum foil. One Canadian troop showed how they used this handy material for doing potatoes, steaks and other foods over the campfire; how they kept food fresh in summer heat by protecting it with aluminum. If this missionary work carries the idea back to distant lands, Canada may have to turn out still more aluminum foil—even though last year her output, if laid in a 12-inch strip, would reach 382,000 miles.

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"BUSINESS QUANDARY"

Here's the familiar little beast that's upon you whenever there's a financial doubt in your mind . . . or a banking or trade problem that needs technical attention. Beware the Business Quandary. He wastes your time and money. You can't outstare him. You can't ignore him.

When it comes to banking you can call in your Bank of Nova Scotia manager. He's an expert with Quandaries . . . been "liquidating" them for years. How is it done? By being on the spot with exact information, complete banking facilities, years of experience and the helpful approach you expect from The Bank of Nova Scotia.

Next time a Quandary gives you pause, remember your BNS manager can help you with the financial angle. You'll find he's a good man to know . . . and to keep in touch with.

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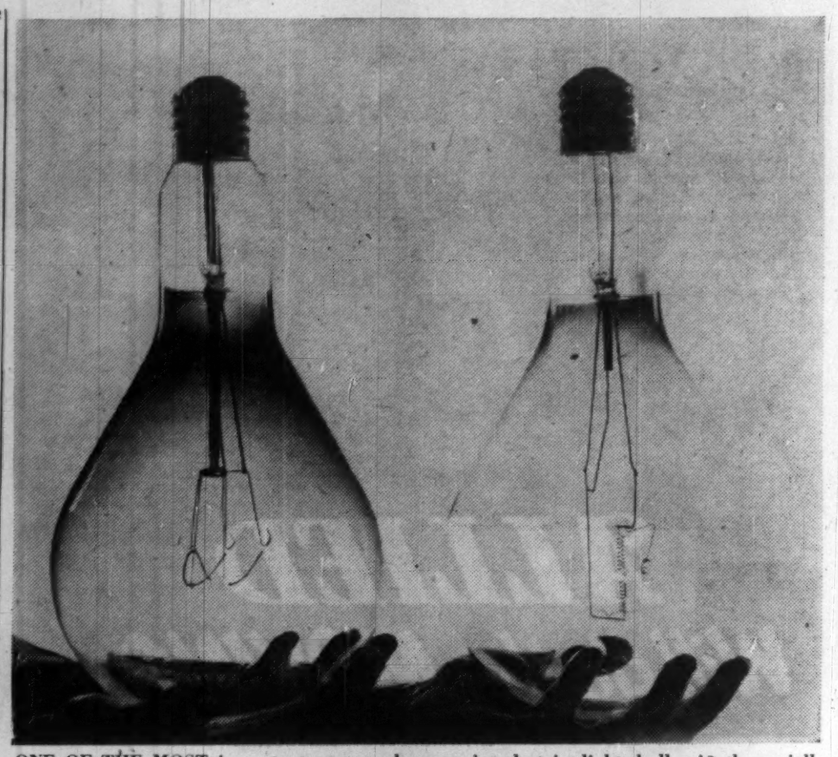

ONE OF THE MOST important recent advances in electric light bulbs is the axially positioned filament bulb developed by General Electric (right). It causes less blackening, thus gives more light longer.

Carbon Powerful Key In Electrical Usage

For quarterback George Ratterman of the Cleveland Browns footfball club, carbon is important.

It brings his boss — Coach Paul Brown — into every huddle.

Carbon is a key element in the tiny battery-powered transistor radio which Ratterman carries in his football helmet. Brown's instructions come over the radio.

This is one example of how the carbon that became famous in carbon lamps is still going strong.

Its uses are legion: Electric steel furnaces — where great growth is anticipated—movie projection lamps, atomic reactors, chemical processing equipment, many more.

Here's carbon's story.

Behind the piercing beam of a great ship's giant searchlight shines the not-so-bright light of an old street-corner arc lamp. Back of the blinding electronic flash of a modern news camera stands the dim shape of a dry cell telephone battery.

These two retrospective glances tell a lot of the story of carbon — a vital element in man's use of electricity.

To many, carbon means coal —the kind used in a furnace— but coal is possibly the least interesting, least imaginative form in which carbon finds employment.

Because it can be formulated with widely varying characteristics, readily machined into intricate shapes and forms, carbon has proved a most adaptable element in man's hands.

The starting point for many manufactured products for industry and household use finds carbon in a form quite similar to furnace coal. And petroleum coke, a product of the oil refining industry, is another basic ingredient of carbon and graphite products.

Early-century production — and consequently some of the early knowledge of the properties of carbon — was confined to streetlighting carbons and the use of carbon in manufacturing dry cell batteries for hand-cranked telephones.

In addition, dry batteries for gasoline engine ignition were the mainstay of the then infant automobile industry. Even today the telephone industry is a major user of dry cell batteries — the first real "packaged" electricity.

Motion Pictures

At about the time incandescent lamps made carbonarc streetlighting obsolescent, the motion picture industry came into being.

The movie business is no stranger to superlatives, but it's not stretching the truth to say that, without the carbon arc as a light source, we would not have motion pictures as we know them today.

Brightest man-made light source available to the industry — and closest to natural sun light — comes from the less than one-quarter sq. in. crater of the motion picture carbon arc.

Used for studio lighting as well as for theatre projection —and the subject of constant and exhaustive research—this powerful and flexible light source won for **National Carbon Company** in 1955 a special award "Oscar" from the Academy of Motion Picture Arts and Sciences.

Too, because of its purity, brilliance and flexibility, the carbon arc finds employment in the spectroscopic analysis of many materials and in such crafts as photo-engraving and industrial still photography, as well as in giant searchlights.

Stubborn in many ways, carbon does not soften or melt under extremes of heat, therefore makes an ideal material for furnace linings and other metallurgical purposes.

Carbon possesses the further virtue of being inert to the action of most chemicals. Pumps, piping, heat exchangers and many other types of chemical processing equipment are, therefore, made of carbon products.

Capable of handling even the most corrosive materials in chemical processing operations, this equipment has proved to be practical and economical for use in the chemical industry.

Electric Furnace

Anyone hearing the deafening roar of an electric furnace in which steels and alloys are made gets a good idea of power within — power so great that an arc struck from carbon or graphite electrodes gives the furnace a heat source reaching 6,000 deg. Fahrenheit.

Used also to make calcium carbide, abrasives, phosphorous and non-ferrous metals, the electric furnaces in these industries are equipped with electrodes, carbon or graphite, ranging in size from 1½ in. to 40 in. in diameter, measuring as much as nine in. in length and weighing over 3½ tons each, in the larger sizes.

Still another use for carbon: Manufacture of carbon and graphite sliding contacts — known in the industry as "brushes"—for electric motors and generators, for rotary converters and a host of other contact purposes in the production and transmission of electricity.

More recently, a broad field for carbon and graphite brushes has opened up in trolley coaches and in the dieselization of our railways. In this application, as many as 125 brushes are used in a single diesel-electric locomotive — and there are in operation today not less than 1,500 diesel road locomotives and shunters on Canadian railroads.

Because of its excellent moderating properties and low neutron capture cross-section, graphite was used in first atomic reactors. Low cost, ease of precise machining and ready availability were other factors in atomic energy application.

Graphite is used as a moderator in many atomic reactors, as a reflector material and for thermal columns. A 58-ton reflector of graphite is used in the Canadian NRX reactor. The NRU reactor, now under construction, will contain a graphite thermal column of truly massive proportions.

More recently, graphite has attracted increasing attention as a high temperature refractory and a container for liquid metals. Too, for future reactors, consideration will be given to graphite as a construction material where high temperature is required or economy in construction and in neutrons is desirable, in combination with the generation of commercial power.

Packaged Power

When car generators, distributors and self-starters replaced magnetos and hand-cranking, the ignition dry battery business was supposed to be doomed. When plug-in radios relegated battery-powered sets to unwired rural areas, the soothsayers predicted early ruin.

But industry was so busy making and selling batteries it had not heard the bottom had dropped out. So, in spite of the gloomsters, each year still sees millions of dry batteries made and sold.

And, believe it or not, batteries have an interesting future in radio.

From the bulk of a battery-powered console radio of 30 years ago, to today's pocket-size transistor receiver, powered by special energizers smaller than flashlight batteries, is a long stride — and one that has not been without rough spots.

Just as the plug-in radio took over from battery radio, so did television sales take over from radio sales. But now, during the wait for color TV, television sales are leveling off and a boom in tiny, mass-produced, transistorized personal radios may be just beginning. These sets will fit into a lady's purse or on a fisherman's wrist.

One reason for the boom is that people have found they can listen to newscasts while shaving, to music while bathing and to weather reports while working.

The little sets in the future may be found in bathrooms, kitchens and workshops—and because they will be cheap to run on their tiny batteries and because users can be active while listening, ownership of three battery-powered radios isn't unlikely.

The readiness of tiny batteries for special application grew out of the wartime need for powerful but small dry battery activation of the deadly proximity fuse in the nose of anti-aircraft shells; and also from the demand of the meteorological service for tiny batteries to power little radio transmitters carried by weather balloons.

SHAWINIGAN'S BEAUMONT DEVELOPMENT MEANS MORE POWER FOR QUEBEC

Constant growth in productive capacity marks the current progress of The Shawinigan Water and Power Company. To meet steadily mounting power requirements of expanding industries and communities in Quebec, Shawinigan has launched construction of another power development on the St. Maurice River.

This new generating station, now being built at Rapide Beaumont, will comprise six generating units with a total capacity of 246,200 kilowatts. Target date for power production from the first unit is November 1, 1958. With all of the Beaumont Development's units in production, Shawinigan's seven power developments on the St. Maurice River will have a total installed capacity of over 1,500,000 kilowatts!

Thus, through continuing expansion Shawinigan advances in step with the progress of Quebec and its industrious people.

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associated and subsidiary companies

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Burndy is ready to help solve any problems that involve joining, terminating, clamping or grounding any size or variety of electrical conductor.

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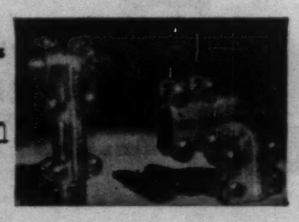
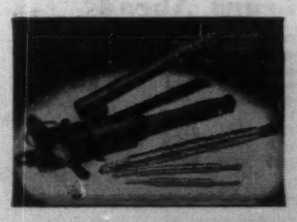
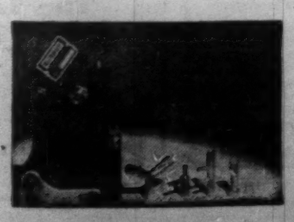
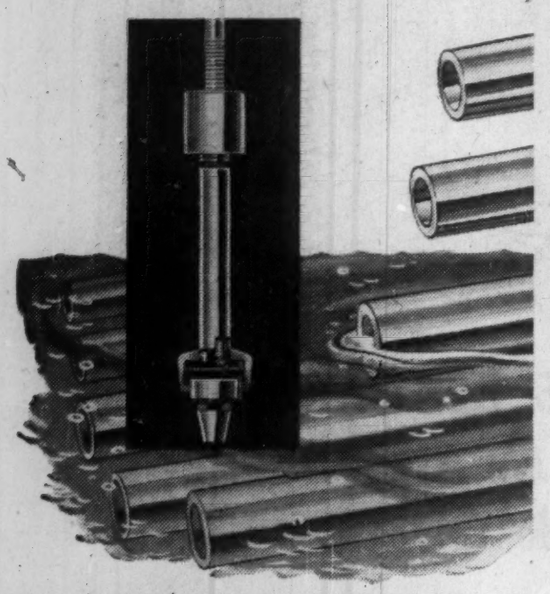




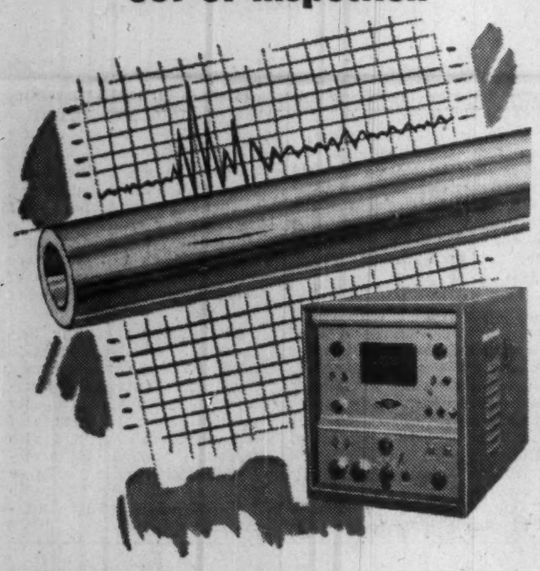


Assuring flawless, leakproof tubing for

NUCLEAR REACTORS



CURTISS-WRIGHT automated ULTRASONIC TESTING takes the human element out of inspection



Let the tubing in a nuclear reactor develop a leak . . . and the whole reactor has to be buried for several thousand years! Such an impediment to progress is hard to visualize — but it is true, and has actually happened.

The time to check tubing for flaws is *during production*. And the means for the necessary close inspection is now available to all industries — the Curtiss-Wright Ultrasonic Testing System.

This system — using high frequency sound waves of the order of several million cycles per second — provides the first automated inspection of tubing. Completely automatic, it makes a precise graphic record of the inspection operation. This method eliminates the need for an operator to watch the screen for flaw indications. The Curtiss-Wright system takes the human element out of the picture. Both welded and seamless tubing can be tested with this system.

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Here's a Peek Into the Future

(Continued from page 68)

ahead, and we plan our future requirements for plant and equipment, money and manpower. We stress the necessity for the training and development of our managers to do this forward planning. It is so very easy to become engrossed in the opportunities and problems of the moment that the planning for the future is all but pushed aside.

* * *

J. M. THOMPSON, Vice-President, Canadian Westinghouse Co.:

We believe the differential between Canadian and U. S. production costs in mass-produced items will tend to become less. As our own market grows, we will be enabled to take fuller advantage of mass-production economies and other technical improvements.

In fact, we have already seen this taking place, to a limited extent. This will be true, however, primarily for large-volume items, such as refrigerators, television, electric ranges and the like. There will continue to be a large cost differential on items produced in smaller volume.

It is our expectation, based on our own forecasts and those of the Ontario Hydro and other electrical utilities, that the industry will continue to expand rapidly, though the over-all expansion rate may not be quite as rapid as during the last 10 years.

However, in some fields the growth may continue to be rapid indeed. There are indications that electronics will continue to develop at a high rate; also the newer fields, such as the various applications of nucleonics and nuclear energy.

Apparatus for the production and distribution of electric power will take a decided upsurge, if the predicted increase in electrical utility systems for the next 25 years materialize.

Our own forecasts indicate that the annual Canadian demand for new generators will increase from the current level of about one million kva per year to five million kva per year by 1980; demand for power transformers will increase from five million kva to 22 million kva per year in 25 years, and demand for motors of all types will increase from the present 1,250,000 hp per year to 6,250,000 hp per year in 1980.

The rate at which the demand for home appliances, radio and television continues to grow will probably depend on the rate of increasing industrialization of the country. Home appliances, radio and television now constitute an increasingly large portion of our total business.

While the growth in the next few years may not equal that of the recent past, it is our expectation that this portion of the business will continue to grow.

Everything considered — and always assuming a continuing favorable economic climate — we believe the industry will continue to expand, and that this expansion will continue to outpace the growth of GNP, a trend that has been evident for more than 20 years.

* * *

R. D. HARKNESS, President, Northern Electric Co.:

Future development of the electrical manufacturing industry in Canada is to a large extent related to the growth of secondary manufacturing, and in turn, to the growth in Canada's population.

Of the total gainfully employed in Canada, the larger proportion is employed by secondary manufacturing and service industries together. These two groups are the largest actual and potential employers of labor, the service industries being largely subsidiary to and dependent upon the prosperity of the secondary manufacturing industries, and, of course, the economy as a whole.

Canada's future economic growth, therefore, depends upon:

— an adequate immigration policy.

— secondary manufacturing prospering along with primary production.

The continuing growth of the electrical manufacturing industry depends largely upon three factors:

— The growth in population.

—Advancement in technology.

— An expanding domestic market for Canadian manufacturers.

Advances in technology will increase the market for the industry. Increases in population will also increase the market. However, in order to take full advantage of the improvements in technology, the larger market created by an increased population will be necessary.

With increasing population and advancement in technology, it is our expectation that the demand in Canada for the products of the electrical manufacturing industry will continue to expand at a rate only slightly less than it has during the past 10 years. With this expansion, capital will be required on a large scale and at a continually expanding rate.

However, it is not nearly so clear as to what extent Canadian industry and Canadian labor will participate in this expanding domestic market.

In other words, it is possible that a diminishing share of the total Canadian demand for electrical products will be made in Canada and that more will be imported at the expense of employment in Canada for the following reasons:

- If Government trade policy continues to make it easier and even necessary for Canada to import increasing quantities of manufactured goods which are already made in Canada, in return for the primary products which Canada exports, then less will be produced in Canada and the net result will be an adverse effect upon employment in Canada.
- If, through the effects of international unionism, wage levels in Canada are brought to parity with those in the U. S. without commensurate increases in productivity, then we, in Canada, become less able to compete not only with the U. S., but with manufactured products from all other countries, and more will be imported.

* * *

O. W. TITUS, Vice-President and General Manager, Canada Wire & Cable Co.:

The wire and cable industry is faced with the problem of large capital expenditures for expansion and modernization of plant.

This, together with a need for increased research facilities, demands a favorable investment climate for this industry and a friendly attitude toward secondary industries in order that we may compete for the investor's dollar.

This requires assurance that foreign participation in our domestic markets be on a fair basis recognizing the much lower labor rates of foreign manufacturers and the exchange rates.

As to trends:

—The use of wire and cable will rise approximately in proportion to the consumption of electrical kwh in Canada.

—Its export market will be variable and unpredictable until foreign currencies, economic policies and the ratio of foreign labor rates to Canadian are stabilized.

—There will be an increasing use of aluminum in the future, replacing copper.

—There will be an increase in the use of aluminum as a sheathing material over cables, replacing lead.

—Use of 110 kv and higher voltage underground cable will rise substantially.

—There will be a continuing, increasing use of plastics as a replacement to rubber, textiles, etc.

—An increase of technical skills will be required in production, applications of products, and in research and development.

We will be subject to pressures to cheapen our products, which is undesirable from a safety and performance point of view.

Power Backs Electrical Men

	Installed Capacity hp millions	Generated kwh millions
1939	7.8	28,338
1944	9.9	40,599
1952	14.2	59,409
1953	15.6	62,861
1954	...	69,136

The Industry Leaps Ahead

	Manufacturers of electric Aparatus only	Other industries making electrical Apparatus	Total	Percent of GNP
	$ million			
1939	89.1	16.6	105.7	1.8
1944	283.1	17.2	300.3	2.5
1953	848.2	127.8	976.0	3.9
1954	863.9	122.9	986.8	4.1

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A manufacturing plant in Paris, Ontario, has a Barrett Specification* Roof that was applied in 1925. This year, after 31 years of service, the roof is still in nearly perfect condition! Its owners report that in all those years it has required *no attention* other than routine inspection by plant maintenance men.†

This is the kind of service you may expect when you buy a Barrett Roof. Actual building records show that Barrett Roofs serve years *beyond* their bonded periods—without maintenance or repairs. Buy a Barrett SPECIFICATION Roof this year and you may well receive *trouble-free* service all the way through to 1987!

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Fingertip Touch Heats, Cools 21-Story Hotel

By ALVIN EPP
Editor,
Heating & Plumbing Engineer
(Maclean-Hunter)

One man with electronic fingertip control will provide Montreal's 21-story Queen Elizabeth Hotel with perfect indoor climate and still save the CNR thousands of dollars annually in maintenance and operating costs.

Total operating savings, after carrying charges, effected by **Minneapolis-Honeywell's** Supervisory Data Centre (SDC,: about 27% return on investment. Manpower savings alone total $23,800 a year because one man does the work of three; thousands more are saved in fuel and power costs.

A similar SDC, with equally unbelievable savings, will go into B. C. Electric's 22-story head office in Vancouver. And in both cases, the public will see these master control panels with their intriguing array of dials, buttons, switches, color-coded diagrams and lights because they'll be behind giant glass panels on the ground floor.

By applying advanced automation techniques to the field of human comfort control, Honeywell's engineers have licked the twin problems of big building management; efficient control of human comfort and rising maintenance costs. Where before men walked hundreds of miles checking and adjusting temperatures at considerable expense, now electrons do the job faster, better and cheaper.

Destined to become a major convention centre, the 1,200-room Queen Elizabeth is the first hotel in the world to adopt this advanced comfort control system; **B. C. Electric** head office is Canada's first office building with an SDC. Already in the United States, more than 50 commercial buildings are realizing huge maintenance savings through SDC. Installations range from medium-sized private clubs to **Prudential Life's** giant 41-story office in Chicago.

What It Costs

How much does SDC cost? Honeywell engineers figure between 2% and 5% of the total cost of the heating and air conditioning system. And since one man can do the work of three, the resulting savings in manpower and fuel costs spell quick liquidation of the initial cost.

It's difficult to put a price tag on the SDC because it has unlimited applications. For hospitals and hotels, the job it can do and the savings it creates would be staggering. And if there is such a thing as a benefit from inflation automated control would be the first to gain since every hike in labor costs makes automation just that much more profitable.

What does an SDC do? According to the technical definition, it collects, at a central location key operating data of a heating and air conditioning system and incorporates remote control devices to supervise the system's operation.

It has four main functions:

—continual checking and logging of key temperatures and other data;

—adjustment of controls;

—starting and stopping of heating and cooling equipment;

—investigation and handling of complaints.

A single engineer, seated in front of his master control panel, has his entire system ranged around him, its components and the building's outline, so that he can see at a glance how any one section is functioning. Any component of the system can be plugged into a recording instrument for a trouble-shooting record. More important any key temperature can be checked by the touch of a button and a glance at an indicator. Adjustment becomes a mere twist of a knob or flick of a switch.

In the Queen Elizabeth, one man will check and control 200 operating points in seven equipment rooms without leaving his seat. He'll start and stop 81 fans throughout the building and he can begin compensating for huge cooling loads at convention halls even before delegates begin filling the seats.

An electronic scanning monitor automatically checks temperatures and records them on an electric typewriter—a temperature variation will be either printed in red, ring a bell or flash a light telling the engineer an adjustment is needed immediately. A twist of a knob does this as electrons scoot through 30 miles of wiring.

All this can be watched by the public and introduces a new era in the rapid development of human indoor comfort control.

Why It Is Necessary

Many people have asked this question: why it is necessary to be able to remotely check and adjust an automatic control such as room thermostat? After all, isn't an automatic control supposed to be automatic?

Honeywell's engineers agree wholeheartedly with this statement and, for example, do not advocate remote supervision of individual room control. There, they believe, the occupant should adjust his own thermostat to suit his particular needs.

There are, however, many other key conditions in a gigantic heating and air conditioning system that require remote supervision for detection of malfunction of the total system or for readjustment to provide best operating conditions as heating and cooling loads vary. Hotel lobbys, convention rooms, dining halls, huge offices and other public areas are only a few examples where remote control is necessary for fast and efficient operation.

The largest item in the cost of operating a heating and air conditioning system is the cost of numerous personnel required to operate, maintain and inspect equipment and to investigate and handle complaints.

By eliminating time-consuming routine inspections and adjustments, the SDC frees maintenance personnel from system performance worries thus giving them more time for important preventative maintenance work.

Data collected by the SDC can be presented in two forms — tabular and Colorgrafic, Honeywell's trademark for its color-coded schematic control panel.

In the tabular form, the control panel consists of rows of control point adjustments, temperature indicator push-buttons, indicator lights, all of which are identified in a tabular form. Also included are instruments for indicating or recording data from components of the system.

The Colorgrafic panel, by far the most popular because both engineer and general public can easily associate system function with specific building areas, locates the data and adjustments on a graphical representation of the system in a color-coded schematic diagram.

Heating coil and steam flow lines are shown in red; cooling coil and chilled water flow lines in blue; condenser water lines in green; ductwork, lettering and building silhouette in black; control wiring or piping in yellow; background in light tan or light gray.

Data in Five Forms

The entire graphic layout is reverse engraved on Lucite with the engraved portions colored according to the function it symbolizes.

Data on the Colorgrafic is provided in five forms:

— a single temperature indicator serves an unlimited number of remote locations selected by pressing a button or using a telephone-type dial;

—pilot lights provide continuous information concerning fan and pump operation;

—continuous-reading indicators show a single condition, such as temperature, pressure or flow, at any one point for an unlimited time;

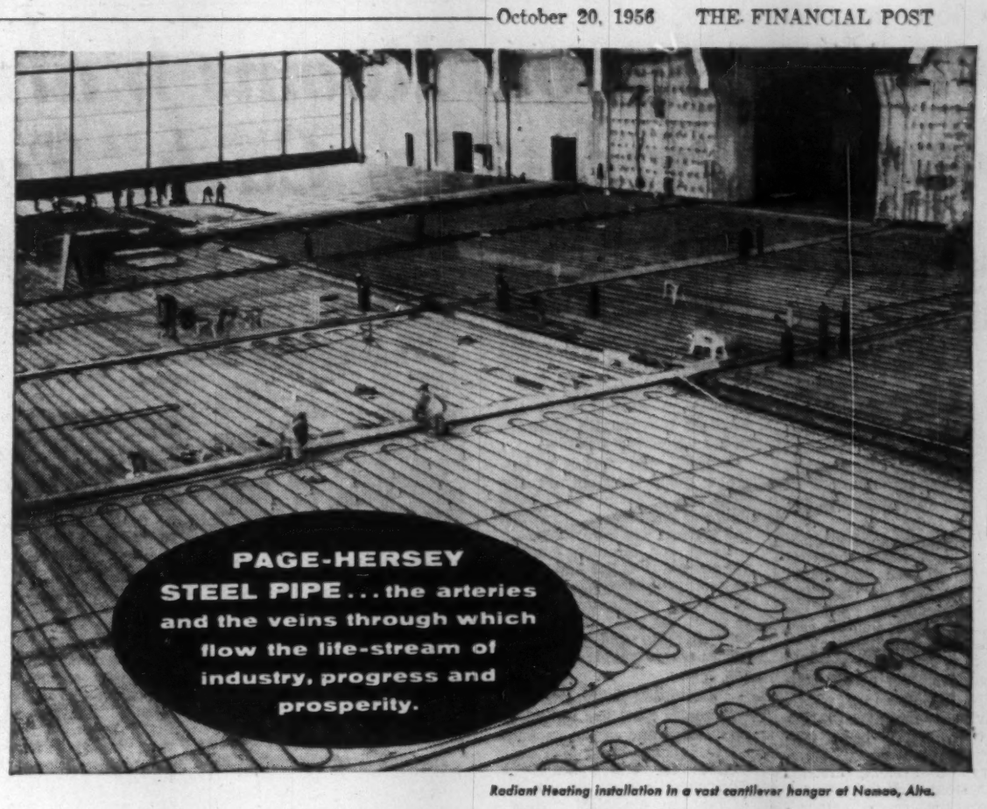
—recording-indicators record as many as 20 remotely located temperatures at one time for analysis of the system's performance over a period of time;

—totalizers tell the engineer the total steam or fluid flow and can also be used to show the total operating time of the equipment to provide an accurate record of the system's performance.

Supervision of data is achieved in two ways on the Colorgrafic panel:

—when data is being gath-

(Continued on page 72)



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Page-Hersey manufactures pipe by the most modern processes known to the industry. "There is no better pipe made anywhere than is made in Canada by this all-Canadian company."

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Domestic Hot and Cold Water Lines

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That's where the Canadian Pacific Department of Industrial Development comes in — we have the facts you should know — facts on plant sites, power availability, labour supply, raw materials, transportation, market potential — to name only a few.

Through a widespread network of agents and offices, we have collected all this information on Canada from coast to coast. These facts are at your disposal simply for the asking. Your enquiries will receive a prompt, private reply without obligation.

DEPARTMENT OF INDUSTRIAL DEVELOPMENT
Vancouver Calgary Winnipeg Montreal Toronto London, Eng.

The Executive V. P. takes control

"But this—" the Production Manager was almost plaintive—"would mean a complete retooling! We can't fill the order with the setup we have!"

"Bob," said the Sales Manager, "I'll leave that worry to you. We've got the order, and it's enough to use up our whole plant capacity!"

"Frankly, that's what has me worried," the Executive V. P. said. "If we accept this order, we've got to find more working capital—and I frankly don't know where!"

"But," the Sales Manager exploded, "credit passes the account in a breeze! Harry says it's insured already, and he's putting in for more coverage, and—"

"—and he's practically got it already!" The Credit Manager came up to the three standing there. "I'm having lunch with our American Credit Insurance Agent," he went on, turning to the Executive V. P., "and I'd like to have you along. How about it?"

• • •

"—so you see, there's not much point in our increasing the coverage, since we can't take the order anyhow." The Executive Vice President felt he was letting the American Credit man down soft and easy.

The agent kept his voice judicially calm. "Consider your accounts receivable as collateral for the working capital you need. On insured accounts—and that would include your newest account, of course—you shouldn't have any difficulty at all in raising all the money you'd need. As far as the time goes, you can most likely arrange to use funds on a continuing basis. We've handled quite a few such arrangements, where the policy names the lending institution as the collateral beneficiary. Here's how it works—" and he went on to outline a plan.

The Executive Vice President suddenly saw a way to give Production the tools it needed, to give Sales a go-ahead on the biggest account in company history, to give his company the biggest boost it ever had—and he felt once more in complete control of the situation.

• • •

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Touch a Button, Rooms Warm; Controls Save 27% Cash, Too

(Continued from page 71)

ered as selected readings, supervision is carried out with a separate selector knob, remotely resetting a thermostat or repositioning a motor;

—where data is being continuously indicated or recorded it is most practical to effect supervision at the instrument as part of the instrument's function. An example is the Tel-O-Set instruments which can provide, in one unit, combinations of indication, recording and supervision.

Years of experience in electronic control led Honeywell engineers to use the panel module concept in building Supervisory Data Centres since these panels include certain common functions which apply to a few basic systems common to nearly all air conditioning systems.

Individual modules, therefore, cover these basic systems: refrigeration, heating, primary air system, interior zone system, induction unit, exhaust fans, room temperatures, temperature recorder and indicator and the building's silhouette.

The refrigeration module, for example, provides a graphic representation of cooling equipment, pumps, fans and flow lines.

Pilot lights indicate operation of cooling tower fans, condenser water and chilled water pumps. Supervision is by selector switches, pushbutton switches and a recording controller to provide remote control of the equipment on the panel.

Similarly, the heating module shows boilers, feed-water pumps and flow lines for water, steam and combustion gases. Instantaneous data of steam flow and pressure are recorded and steam flow is totalized for each boiler. Stack temperature is also indicated and noted. Operation of burner, burner pilot, low pressure and low water equipment is indicated with pilot lights. Start-stop buttons permit the operating engineer to control feed-water pumps from the central panel.

How SDC Is Used

Let's look through the glass panel in the lobby of a modern skyscraper and see how the building engineer uses the SDC.

At the start of the day, he goes to the module depicting the primary air system in miniature. To ventilate the building he starts the exhaust and supply fans on the roof. He also starts the zone supply fans on each floor. Next he presses a button and reads the outside air temperature on the indicator. It shows 70 deg. F. and he feels that cooling will be needed during the day so he turns to the module showing heating and cooling systems.

He switches the system to summer operation and starts the circulating pumps to the room units controlled by individual room thermostats. Then he goes to the refrigeration module and starts the condenser water pump, cooling tower fan and the chilled water pump. Once all of these have started, the compressor starts automatically.

Without the SDC, this starting of equipment would require coming in two hours earlier and traveling through the building to start various pieces of equipment. The shorter running time of fans, pumps, etc., results in important savings in electrical power, steam and longer equipment life.

After attending to other duties for 10 or 15 minutes, he returns and checks the chilled water temperature as shown on his chilled water temperature controller. If he finds the water temperature not satisfactory, he can adjust it with his Tel-O-Set instrument.

He has a note on his desk telling him there's a sales meeting scheduled for the board room on the fifth floor. He adjusts the ventilation and temperature accordingly.

By 8.30 a.m., he's ready to take his first log of temperatures throughout the building. If nothing unusual is noted, his only duty so far as the air conditioning system is concerned is to log temperatures hourly the remainder of the day.

Later in the day, he gets a call from the ninth floor. The office manager says it's too cool. The engineer checks the space temperature and finds that it is a bit cool. He increases the temperature setting 2 deg. F. and tells the office manager. The SDC has eliminated special trips to check on spot complaints such as this.

At his 2 p.m. logging, he notices that the air temperature leaving the dehumidifier coil is higher than it should be. He checks the chilled water temperature supplied by the refrigeration equipment and finds it correct. He tries adjusting the humidifier thermostat to a lower value, but nothing happens. This means the dehumidifier is not functioning properly and he sends a man to investigate possible sources of trouble. The man reports a clogged strainer and the situation has been remedied. Operation of the system returns to normal with the building tenants still unaware of the temporary trouble.

Without the frequent loggings made possible by the SDC, this might not have been detected until the entire building became uncomfortable.

When the building empties for the night at the end of the day, temperatures are changed to provide maximum economy of operation yet furnish necessary heating and cooling in offices where people are working late.

Unlimited Application

Actually SDC has unlimited application and can be expanded to become basic operating centres for entire buildings. Such functions as supervision of building electrical systems, plumbing systems, fire and burglar alarm circuits, automatic elevators and complete time programing are being adapted to the SDC concept.

It's a natural for hotels and right now Honeywell engineers are busy perfecting a centralized control centre for hotel management. They call it a Hotel Master and it'll do these nine things automatically:

—provide a graphic layout of hotel facilities including guest rooms and public spaces;

—make possible huge savings in heating, cooling and lighting in individual rooms by remote control of these services as needed;

—provide automatic fire detection and alarm; a bell rings and a light flashes to indicate the room endangered;

—provide "room make-up" signals between maids' room and front office; when guests check out, room clerk presses a button on that room panel; this flashes signal light in the linen room and after new linen has been put on beds and fresh towels supplied, maid signals front office that she's finished;

—provide guest morning call and acknowledgment system with pleasant chimes replacing the harsh ring of the telephone;

—notify guests of mail and messages;

—switch TV aerials remotely;

—log temperatures at remote points including guests rooms and public spaces.

This panel can be expanded to include automatic control of reservations, registration, guest history, billing, accounting and inventory control.

Honeywell's Hotel Master (Motel Master for motels) more than pays for itself in just two years, according to estimated per unit savings with a typical installation in a 100-unit hotel or motel.

Here's how it's figured:

Labor savings $50 (based on a saving of only 3½ days (man days) work per unit).

Cooling savings $8 (average based on a one-ton requirement).

Heating savings $6 (average).

Lighting & power savings $4 (average).

Total $68 per unit per year.

Yet the cost of a basic panel for a 100-room installation may be as low as $110 a room, completely installed, according to Honeywell engineers.

For Hospitals

A bedside control centre is being developed for hospitals. It incorporates and integrates the function of individual room temperature control, intercommunication between patient and nurse, switch control for motorized beds and drapery actuators, a radio selector switch, room and bed light control and oxygen outlet.

Honeywell's SDC has a universal appeal because of its tremendous potential in an era in which automation is the chief driving force. All four segments of the building industry are especially interested in SDC for these reasons:

● **Owner.** With a large investment in a building, he sees the SDC as a means of improving indoor comfort and reducing operating costs;

● **Architects.** SDC is a potentially attractive architectural feature as well as an installation to increase efficiency of mechanical equipment;

● **Engineer.** He sees it as a means of co-ordinating highly complex mechanical functions in an efficient manner;

● **Contractor.** SDC helps him put heating and air conditioning systems into operation faster and more economically thereby gaining early acceptance of his work from owner, architect and engineer.

For the general public, SDC's operation seems almost magical. It's tremendously impressive to see one man sitting in front of a monstrous control panel, studded with knobs, dials, switches and buttons, knowing that he single-handedly controls the heating and air conditioning of a skyscraper. It drives home the benefits of air conditioning, something that until now has been an experienced, but hidden benefit, and taken for granted.

What's ahead for SDC? Hotels and office buildings are but two examples of where automated remote control of indoor comfort can be used efficiently. Schools, banks, hospitals, factories, in fact any large building where indoor comfort conditions and operating costs are critical, are sure markets.

But SDC is much more than a color-coded piece of equipment. It is actually a philosophy of building operation. It adapts to the operation of commercial buildings the newest achievements in the field of automatic control, electronics and automation. Not only does it make many processes automatic, but it also provides for convenient and efficient supervision of these processes. It's a dramatic new tool for those concerned with building design and building operation.

Judging by what it is doing now and what it will do as its functions are broadened, Honeywell's Supervisory Data Centre will be the heart of the automatic building of the future.

ANOTHER CANADIAN FIRST

Canada first used water power to generate electricity for lighting in 1882, when it was harnessed to illuminate an Ottawa saw mill.

COST OF ELECTRICITY

Electricity costs only about 5c to keep a 100-watt lamp lit for 10 hours or to run a washing machine for two hours.

"Good for the boss!"

When Blue Cross goes in, employee relations go up. For peace of mind is the best morale builder of all.
Blue Cross hospital care plan provides maximum benefits without fuss or bother. Over 23,000 Canadian companies participate in Blue Cross. Members are protected by hospitals in every province. Altogether, the Blue Cross certificate is accepted in 6,000 North American hospitals. Blue Cross offers a wide range of plans—one of them can be adapted to fit economically into your health-welfare programme. Please write to your provincial Blue Cross headquarters.

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prevent NEEDLESS depreciation with regular

TURNBULL ELEVATOR MAINTENANCE

Keeping elevators in peak operating condition is a job for specialists. Turnbull Protective Maintenance guarantees regular inspection by experts, prompt call-back service and repair or replacement of renewal parts due to normal wear and tear. Any type of elevator . . . the Turnbull Protective Maintenance Contract means smooth, safe operation, cleanliness, correct lubrication and a regular check from pit to penthouse.

On each regular visit the Turnbull Maintenance Inspector rides and observes equipment both inside and on top of the car. He checks and, when necessary, adjusts the operation of gates, interlocks, hoistway doors, acceleration, deceleration, floor stops, levelling, brake action and safety devices. He also checks hoisting cables, cable fastenings, electrical circuits, controllers, driving equipment, roller guides and guide shoes, pit buffers and motor generators.

For the building owner, a Turnbull Protective Maintenance contract means protection of capital investment and insurance against elevator troubles.

TURNBULL ELEVATOR CO. LIMITED

HEAD OFFICE TORONTO, CANADA

Elevators maintained by Turnbull get complete, regular pit to penthouse check-up. In pit, Maintenance Inspector must examine compensating sheaves, buffers, safety switches and other equipment.

Turnbull Maintenance Inspector is shown lubricating motor generators for a large elevator system. Proper lubrication is essential to trouble-free elevator operation. Hence, checking all lubrication points is one of the important jobs of the maintenance inspector.

All Turnbull Maintenance Men have actual elevator construction experience, so are familiar with details of complicated wiring circuits. Inspector is shown here checking central control panel against master blueprints.

Each Turnbull Maintenance Inspector is assigned to specific buildings, reports regularly to building management on condition and operation of the elevator system.

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